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Values and Meaning in Rural Primary Care Practices: Implications for Interventions Within Context

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Abstract

Objectives: It is important to understand the unique perspectives and values that motivate patients and clinicians in rural primary care settings to participate in clinical care activities. Our objective was to explore perspectives, preferences, and values related to primary care that could influence implementation of evidence-based programs. **Methods:** Qualitative study utilizing semi-structured interviews and using immersion/crystallization and thematic analysis. Participants were primary care practice members (clinicians, clinical staff, and administrators) and their patients in rural Colorado. **Results:** Twenty-six practice members and 23 patients across 9 practices participated. There were 4 emergent themes that were consistent across practice members and some patients. Patient perspectives are located in parenthesis. They included: (1) Focus on quality patient care, patient satisfaction, and continuity of care (patients appreciated quality and compassionate care), (2) Importance of prevention and wellness (patients appreciated help with preventing health problems), (3) Clinician willingness and ability to meet patient preferences for care (patients described comfort with local care), and (4) Passion for serving underserved, uninsured, or vulnerable populations (patients described their vulnerabilities). There were differences in how the perspectives were operationalized by practice member role, illustrating the importance of different ways of addressing these values. **Conclusions:** Successful implementation requires consideration of context, and much of context is understanding what is important to those involved in the primary care experience. This study sheds light on salient values of rural primary care practice members and their patients, which may inform interventions designed with and for this setting.

Keywords

rural, primary care, qualitative methods, values, implementation, context

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Introduction

Context can be thought of as a set of characteristics and circumstances that consist of active and unique factors within which the implementation of an intervention is embedded.[1] Context is an important consideration when planning, implementing, and sustaining interventions.[2,3] Understanding context involves attending to the practical considerations, history, and resources of the setting, as well as prevailing attitudes, beliefs, and values of those involved. Context is especially important for rural primary care as these settings have unique attributes and circumstances such as often being smaller in size, more isolated, and having less access to internal and external resources.[4] For example, if an intervention is designed for a more urban environment that has many resources and then replication of that intervention is attempted in a rural environment that does not have those resources, it is unlikely to work well or at all.

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Beyond just resources available, patients' and practice members' perspectives and values are an important factor of the internal context that affects intervention implementation. Values, defined as one's judgment of what is important in life, are an important part of context and are critical for implementation, effectiveness, and ultimately sustainability of interventions. Different participants likely have different values and may understand those values through different mental models about an intervention, about how to determine priorities, or about how to approach practice overall.[5] For example, patients in rural settings may have values around independence or local control and may not wish to participate in centralized interventions provided remotely from another location. Even though participants' perspectives and values are central in implementation and dissemination of interventions, planning for implementation or adaptation of existing interventions for new settings often does not include clinician or patient values or preferences related to the specific interventions or approaches in their context.

Although we know that values are important in implementation, we often lack an understanding across different interested parties and across different circumstances that more effectively inform our intervention plans. In the study described in this paper, we sought to examine how values may vary across different participant types in rural primary care settings in Colorado. We chose to explore values both generally and from a particular health behavior, smoking. We chose smoking because it is a concern in rural populations and has a systematic process for identifying and assisting with it in primary care; whereas, many other health behaviors may not. The goal was to more clearly understand the context in rural settings that may make interventions more effective.

Methods

This qualitative study explored the values held by primary care practice members and their patients in rural Colorado from multiple perspectives. This study was approved by the Colorado Multiple Institutional Review Board. Informed consent was obtained from all participants.

Participants and Recruitment

Selection of participants was purposeful. We worked with the State Networks of Colorado (USA) Ambulatory Practices and Partners (SNOCAP) and their practice-based research networks: High Plains Research Network (HPRN), Colorado Research Network (CaReNet), and Partners Engaged in Achieving Change in Health Network (PEACHnet) to identify practices in rural Colorado. Practices were recruited via letters, phone calls, and clinic visits by the director or a research assistant from HPRN and PEACHNet. Once a practice agreed, we asked the practice to identify 3 types of practice member participants: medical providers (physicians, nurse practitioners, physician assistants), clinical staff (nurses, care managers, medical assistants), and administrative staff (practice managers, front desk staff). The focus was on gaining representation from these different roles; therefore, the practice chose who participated, and not all providers and staff from each practice participated. Patient participants were recruited by practice staff members who contacted patients who met eligibility criteria: English speaking patients over the age of 50 and who had a history of smoking or currently smoked. Patients who agreed were then contacted (up to 3 phone calls) by the study research assistant to obtain informed consent and schedule an interview.

Instruments and Data Collection

To develop the initial guide, we reviewed the medical and psychological literature to inform our understanding. Then we consulted with 2 experts in primary care research and interviewed them about how we should approach the question of value. We created a preliminary guide based on these recommendations and then tested the guide with participants of similar backgrounds. The guide was semi-structured and addressed 2 areas: (1) values and how values shape provision of care in a more general sense and (2) how the practice approached a specific health behavior issue as realized through their values, which was smoking and participation in lung cancer screening (LCS). The values portion of the interview covered typical job duties and responsibilities, which health issues they felt were most important and they personally had the most passion around, and what brought joy to their work day. Additionally, practice participants were asked to identify an event in their work that had meaning to them and represented what they value in their work, and then to describe that event, why they selected it, and its relevance to their values in delivering primary care. The health behavior values portion of the interview asked participants to assign their priority for different types of cancer prevention and screening activities and explain how their values informed their selections. The patient interview guide included the same categories but modified for their role as a patient. Individual interviews were conducted by experienced personnel: a doctorally-trained qualitative researcher and masters-trained qualitative research assistant together (for the practice member interviews) and by the research assistant (for the patient interviews) via video call or phone. Each lasted approximately 1 h and were recorded and professionally transcribed verbatim. Each participant was compensated with a $100 gift card.

Data Analysis

Transcripts were uploaded into ATLAS.ti version 8 (ATLAS.ti GmbH, Berlin, Germany) for data management and coding. We used an immersion crystallization

Table 1. Practice Descriptive Characteristics.

Characteristic	N (%)
Practice size	
1-2 providers	4 (44.4)
3-6 providers	5 (55.6)
Location in Colorado	
Eastern	2 (22.2)
South Central	3 (33.3)
Western	4 (44.4)
Ownership	
Federally Qualified Health Center	2 (22.2)
Rural Health Center	1 (11.1)
Hospital/system	4 (44.4)
Private	2 (22.2)
Types of participants across practices	
Medical providers	9 (34.6)
Clinical staff	12 (46)
Administrative staff	5 (19)

approach to examine the data across multiple passes and from multiple perspectives to triangulate across the researchers completing the work, the question/code categories, the respondent roles, and the key features of the responses.[6] Immersion crystallization is a type of qualitative method in which the analysts review the data in repeated passes of the text, interspersed with reflection and intuitive insights (including review of the literature) and by different analysts to reveal the key findings of the study. First, we used holistic coding[7] in which segments of the text were captured using the interview question to identify the coded segment. Next, quotation reports were created by code grouping, and team members utilized independent memoing which included writing narrative comments to capture the key features of the responses. Additionally, summaries were created for each answer response/code. Memos and summaries were compared across the qualitative team members and reconciled to distill common key features. Summaries were then organized by practice role and also by patients as a group. Results were considered with the relevant literature and input from the larger research team.

Results

Nine practices participated (see Table 1) out of 28 initially contacted. There were no discernable differences between practices that participated and did not except that perhaps those declining were less interested in participating in research or had other competing demands such that participating at the time was not possible. All practices were rural and were generally small practices. Interviewee roles represented at all practices included medical providers and clinical staff (n = 12), with administrative staff included in 5 of the 9. Patient participants (N = 23) were predominantly female (82.6%), white (100%), non-Hispanic (82.6%), averaged 64.4 years of age (range 53-74) and, as per inclusion criteria were either current or former smokers, with 54.2% current smokers.

Themes Overall Across Groups

Table 2 provides a summary for each theme is provided with illustrative quotations directly from interviews.

Theme #1: Focus on quality patient care, patient satisfaction, and continuity of care. Practice members highly valued providing a quality patient care experience, including building and maintaining meaningful relationships with patients over time, truly being there for patients, meeting them where they were with their concerns and listening intently, and providing the best care possible.

Patients shared many stories of what it felt like to be truly cared for. No patients commented on a dissatisfying experience. Patients specifically described gratitude toward their clinician and clinical staff who intently listened, showed compassion and provided a safe space, followed through with care plans, and remembered details about the patient and their families. The vast majority of patients described a meaningful event regarding the care and attentiveness of the clinician and care team in finding, managing, and addressing a health event, leading to a better quality of life.

Theme #2: Importance of prevention and wellness. Among the practice member groups, they all described the opportunity to help the patient by reducing risk through a holistic focus on nutrition, education, and other wellness-focused forms of care and encouraging early detection of cancer through screening.

Similarly, many patients voiced that they believe preventive care is very important because it helps catch health problems earlier, making treatments more effective and survival more likely. Patients described the actions they take to maintain their health such as eating well, sleeping enough, exercising, hiking, fishing, or gardening. Patients were currently smoking or had smoked in the past; many described balancing their smoking with other healthy habits. Exploring the values held by these patients may have been ideal because these are likely the patients who would be targeted with preventive efforts.

However, clinicians and some of the patients voiced themselves how some patients do not value prevention, including screening. Reasons included not wanting to know, believing God will take care of them, that what will happen will happen (ie, fatalistic views), that they only get care when a problem crops up, and that doctors are trying to make money by having patients get screening tests.

Table 2. Quotations Across Themes.

Overall themes		
Theme	Practice member quotation	Patient quotation
#1: Focus on quality patient care, patient satisfaction and continuity of care	"So, I guess satisfaction in—that they feel like they're at home here, and that we're gonna take care of them. . ." [Practice manager]	"She's very caring. She listens to you, asks questions, gives me Kleenex if I cry." "I had a knee replacement. . . I mean it's made a difference in my life, yeah. Absolutely. I was limping for a year. I couldn't walk. . . . that's the reason why I tell you I love my doctors because I've never, ever had an incident where I didn't not get results from my doctors at the clinic."
#2: Importance of prevention and wellness	"Health and wellbeing. I mean that's the reason you get into medicine. You're in it to keep people healthy. The biggest part of family practice is it's preventive. . . If I can keep people out of the ER, out of elsewhere by coming in when you're actually healthy, so we can keep you from getting sick, and that's the ultimate goal." [Physician Assistant] "Well, up here there's a lot of blue collar, and I get a lot of people that say - I mean if you'd have just heard what this one guy said that came in today, and he said, 'You know, you got to die of something.'" [Physician]	"I try to eat as healthy as I can. . . . I allow myself to eat whatever it is I wanna eat. The bad things within some moderation. . .Walking 3 or 4 miles a day, sometimes it's a mile, it just depends." "And I'm not saying, you know, I'm not saying [the PCP's] wrong. . .It's really just not for me. I think people out in the rural communities maybe more than urban, you've been brought up more in the way of 'pick yourself up, dust yourself off, you're not that hurt, it'll stop bleeding', which it did. . . If I'm not feeling well, if I'm having problems with something, you know, then they go to the doctor, but other than that, it's like, nah." "But I think a lotta times medical people—doctors especially—ask people to do all these screenings, and go do all this stuff, and quite honestly I think a lot of times. . . it's a moneymaker."
#3: Clinician willingness and ability to meet patient preferences for local care	"He said, 'Well, can you do that?' And I said, 'well, let me think about it for a minute', and I came back and looked at UpToDate®, and I looked at the pictures, and found the landmarks.. . . I injected steroid in his elbow, and it worked great.. . . I call it cowboy medicine, 'cause people out here they're like, 'I don't care if you've never done it before. Just do it!'. . .they have to drive a 100 miles to get something done, and it's a huge pain in the butt, and they'd rather just have me do it. And I like that kind a thing. I like taking risks and doing new things, and so it works out well for both of us." [Physician]	"When I came and walked up, she said 'M, what's wrong with you?' I said 'I'm fixin' to kill myself', and everything just came all at one time. They took me in, they put me on an anti-depressant. And they made me go there just about every day 'til it started working, and I started feeling better. And they didn't just say, oh, go home and take care of yourself."
#4: Passion for serving underserved, uninsured, or vulnerable populations	"I think because they are more vulnerable than some other populations, I have been drawn to that"—[Physician] "Something I think is really important, again, [is] to provide equal care to everyone. It's an opportunity that was being missed for helping people. . .and we've learned a lot and grown a lot from that, and I enjoy that a lot." [Physician]	"I had to quit my job because [of] my physical problems. I'm trying to get on disability. . ...And that's what's hard around here you have to wait so long to get a diagnosis 'cause you have to drive out of the [area], which is always a pain, and see a specialist, and it takes a long time for them to give you a diagnosis. That's been the biggest barrier down here. . .it takes forever to get a diagnosis on anything."
Variations on themes across practice member roles		
Clinical staff	"Well, a few years back, we had a cardiac patient come in, and so we took him back to our advanced care life support room that has all of our equipment. And. . . everything seemed to be in such a disarray. . . We sent him on to the hospital, survived, but I felt the situation was not performed at the best of our abilities because there was too much equipment in the room. . . after that, I went to the county. . . and said we need more shelving. . .like they have in ERs. . . That you can just glance at it and take it off the shelf. I made more space for the [equipment]. . . and we have more [space] to get like three or four or people in there now too." [RN]	

(continued)

Table 2. (continued)

Variations on themes across practice member roles	
Medical providers	"Catching a cancer diagnosis on a patient. . . [T]he particular patient . . . had seen several providers in Texas, came here for a vacation, and was sick, came in and laying of hands made a difference because I felt the mass. [Her] primary care who didn't touch her, who referred her to a pulmonologist who didn't touch her, who referred her to a hematologist who didn't touch her. They did some tests, and they entered everything into a computer, but they didn't actually, physically examine her." [Physician]
Administrative staff	"I think we're all together as a team. That's one thing that we really push here is we're all one team. . . You work as a team or you can find some other place that you would fit better at to work." [Administrative Director]
	"I don't know if you know my doctors at all, but they have a really great reputation. And people really want to come to us. And like I said, Dr. [last name] won [award]. That was a big achievement for our practice. I felt very honored to be her administrator. You know, I think that reflects on all of us, because she's able to be as good a physician with the help of the rest of us." [Administrative Director]

Theme #3: Clinician willingness and ability to meet patient preferences for local care. Specific to their rural context, there were interactions with patient preferences related to health care, availability of resources, and provider willingness to assist patients with care locally. For example, 1 provider discussed that a patient had elbow pain. The patient was referred to the nearest hospital (a 2-h drive away) and returned to the rural provider unsatisfied. The rural provider thought the patient needed a steroid injection; the provider and patient decided together for the provider to perform this procedure, even though the provider had not done this type of injection before. From the patient perspective, this theme was illustrated with patients valuing receiving local care from their own practice and not getting referred out.

Theme #4: Passion for serving underserved, uninsured, or vulnerable populations. These rural clinicians and staff members had a passion for and valued serving Latinx, geriatric, poor, and underserved populations. Although not specific to rural areas, but indicative of the "meeting the patient where their needs are" (theme #3), 1 clinician discussed that her passion was for equal access to health care for all. She described that she valued providing transgender patients a safe space to receive general health care, hormone treatments, and mental and behavioral health resources. There was no local endocrinologist to assist.

Many patients shared their experiences being in a vulnerable group, mostly due to being in a rural area without access to certain resources or having a low income. Some patients lacked insurance or adequate insurance coverage, making health care financially burdensome or impossible. Other patients described situations of trauma, post-traumatic stress disorder, depression, or anxiety. Patients also described crippling medical conditions that greatly hindered their quality of life, especially in the context of lack of resources to help alleviate the pain, financial hardships, isolation, or lack of care.

Thematic Results by Role Groups

In addition to examining thematic results overall, we examined responses by practice member role type. While all endorsed a theme of caring for patients, the different roles of practice members had different expressions of their values through their role in the practice.

Clinical staff. Clinical staff were usually medical assistants and licensed practical nurses, but also included registered nurses (RNs) who performed more clinical tasks directed by medical providers. They described valuing directly meeting the patients where they are with what they need. This was often at the individual patient level through providing direct, instrumental needs with readily available knowledge or skills. Examples included providing interpretation for patients who do not speak English, giving their own money to a family for gas, and providing motivational interviewing to encourage patients to get colorectal cancer screening.

Among clinical staff, RNs had more autonomy in clinical operations roles or specifically as care managers. They described similar stories around caring for patients, but at a systems level reflecting this autonomy. They could make changes to their own knowledge, physical space, or clinic level workflows.

Medical providers. Medical providers valued being able to do something exceptional for patients. This included direct patient care such as correctly identifying a missed diagnosis, learning and making available an innovative new procedure or service, doing something to benefit the patient without them having to drive a distance, or providing a service that

Table 3. Considerations for Implementation of Interventions in Rural Primary Care.

Contextual perspectives related to the social determinants of health	Contextual values related to engaging in primary care
• Limited resources to address specialty care needs (ie, specialized pain clinics) • Financial hardships (ie, limited income, lack of medical insurance) • Isolation or barriers related to distance to travel • Lack of resources for persons with limited English proficiency • Sense of community for those who lack resources and willingness to personally invest in patients' needs	• Clinician willingness to extend care beyond traditional services based on patient trust and needs (ie, broader scope of care) • Preferences for local, trusted providers • Potential desire to limit screening related to not wanting to know, believing God will take care of them, or fatalistic views • Skepticism and mistrust of screening tests as well as embracing the opportunity to have screening to prevent complications of disease

fills a gap for a vulnerable group. Although mostly at the individual patient level of care, there was a creativity and attentiveness that was distinct from the other clinical groups.

Administrative staff. For administrative staff, they valued contributing to a well-functioning team where others directly help the patients with health care, even though they did not. This was illustrated with much discussion about the value of being part of a high-quality team and feeling good about quality of care provided by the team.

Discussion

Across groups, we identified themes of focus on quality patient care, patient satisfaction, and continuity of care; importance of prevention and wellness; clinician willingness to meet patient preferences for local care; and clinician commitment to serving underserved, uninsured, or vulnerable populations. An implication of these findings is that the quality of implementation and potential for sustainability of evidence-based interventions or programs in primary care settings relies on strong alignment with the contextual values and key preferences of what is most important to multiple interested parties within a setting.[8,9] This study points to complexities of working together in a rural context with multiple interested parties who have unique understanding, values, and perspectives of social determinants of health and primary care engagement (Table 3).

In addition to examining thematic results overall, we analyzed responses by role type. The different types of practice members had different expressions of their values based on their role. These differences have implications for how planning for implementation of new interventions may be communicated or undertaken differently by role. However, given the critical importance of context, it is important to recognize that the specific values of primary care patients and practice members in different locations (eg, rural, urban, suburban) and practice types (eg, independent, for-profit, integrated health systems) warrant consideration as they will likely influence preferences for uptake and adoption of evidence-based programs.

The overall themes of this study are resonant with literature available on perspectives of patients and providers in rural settings. Access issues are the predominant difficulty described by rural settings, including a phenomenon of handling it on your own and getting care only when really needed.[10] One study called this phenomenon "cowboy up."[11] The desire for local control and ownership is noted.[10] This may also be influenced by the often strong and special connection between patients and their medical providers and emphasizes the importance of local care and that relationship,[12,13] enhancing trust in ways that supports having providers stretch their skills and comfort zone.[14] Others have also commented on the values of patients in rural settings regarding their decisions to undergo treatment or screenings for preventive care[15] finding diversity of values as we have.

Last, there is acknowledgment of context as an important factor, with rural settings having unique features and characteristics in multiple ways compared to urban settings.[16-18] What this research adds is the multi-participant perspective within 1 study illuminating how values on the practitioner side may be reflected (or not) in the patient's perspective. Also, this research shows how the different roles in the practice support and complement one another with their values, but how they may be executed differently. These triangulating perspectives add depth to the understanding of what might be considered in implementation of interventions in rural primary care.

This study has limitations. Findings from this population of practice members and patients from selected rural Colorado, USA, primary care populations may not be applicable to other rural populations. In particular, the results for patients are limited to the patient demographics we included, being mostly older, Caucasian, and all previous or current smokers. Additionally, these results did not contrast how these values may have been articulated in contrast to other settings. The researchers utilized multiple methods to validate the results including triangulation across team members and multiple analysis methods; however, there may be bias or misinterpretation of the stories shared in the interviews.

Conclusion

Across roles, primary care providers, staff, and patients consistently shared the motivating values of quality patient care and prevention, even while facing challenges in accessing health care in a rural context for underserved populations. Understanding context, including participant values and the meanings that motivate patient choices related to primary care engagement, can help frame the design and adaptation of evidence-based programs and prevention activities so they are more likely to have high reach and be delivered with quality and sustained. This study highlights salient values and perspectives of key players in rural settings that have implications for successful implementation in rural primary care practices.

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