

# “The Pain Doesn’t Have to Control You.” A Qualitative Evaluation of Three Pain Clinics Teaching Nonopioid Pain Management Strategies

American Journal of Health Promotion  
2023, Vol. 37(2) 210–221  
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DOI: 10.1177/08901171221119799  
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## Abstract

**Purpose:** To explore factors related to effectiveness of nonpharmacological treatment for opioid-dependent patients suffering with chronic pain.

**Approach:** A qualitative study incorporating individual interviews and focus group interviews.

**Setting:** 3 rural Oregon nonopioid pain management clinics.

**Intervention:** A 10-week nonpharmacological educational program incorporating cognitive-behavioral therapy, movement therapy, mindfulness, and other skills.

**Participants and methods:** Across sites, we conducted 9 individual interviews with clinic staff and 3 focus group interviews with 34 patients who had participated in the course. Thematic analysis was used to identify themes within and across respondent groups.

**Results:** Analysis revealed 4 primary themes: program goals; program benefits; characteristics of patients who benefit from the program; coordination of clinic experiences with other care. Several primary findings can be highlighted. The clinics focused on improving patients’ quality of life, while opioid use reduction was a potential secondary benefit, driven by patients. Major program benefits included enhanced pain self-management skills, patients’ greater assertiveness in communications with healthcare providers, and, in numerous cases, opioid use reduction. Participants were unanimous that predisposition toward active self-management of one’s pain was an essential factor for positive outcomes. Patients reported considerable variability in providers’ understanding of their clinic participation.

**Conclusion:** Nonpharmacological approaches for treating chronic pain can be effective for many patients. Clinics teaching these approaches should be more fully integrated into the healthcare system.

## Keywords

pain management, nonopioid therapy, chronic pain, nonpharmacological pain treatment, nonopioid pain treatment, qualitative research

## Introduction

The abuse of prescription opioids is a continuing crisis in the United States, with opioid-involved overdose accounting for almost 50,000 deaths in the U.S. in 2019.<sup>1,2</sup> Prescribing rates have declined over the past decade, driven by a broad national response,<sup>3,4</sup> but nevertheless approximately 1.3 million adults 26 or older had an opioid use disorder in 2019.<sup>5</sup>

Closely linked to the opioid crisis is the urgent need for effective treatment strategies for people living with chronic pain,<sup>6–8</sup> a condition that is estimated to affect approximately

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20% of American adults.<sup>9</sup> Recent years have led to a recognition that long-term opioid remedies for pain are not effective and pose considerable risk.<sup>8</sup> A number of policy and research initiatives to promote effective chronic pain treatment have been instituted, including a National Pain Strategy created by an interagency committee for the U.S. Department of Health and Human Services and a Federal Pain Research Strategy created by the NIH Office of Pain Policy.<sup>6,7,10</sup>

In the wake of these 2 crises, there has been extensive clinical and research interest in nonopioid, non-pharmacological therapies for treating chronic pain. Psychologically oriented approaches include cognitive-behavioral therapy,<sup>11-13</sup> acceptance and commitment therapy,<sup>14</sup> and mindfulness and meditation.<sup>15</sup> Movement-oriented approaches include exercise and yoga.<sup>16</sup> Manual therapies include manipulation, massage, and acupuncture.<sup>17</sup> A rapidly growing body of research, including randomized trials, has found that these therapies can be at least moderately effective in reducing pain severity and improving patients' quality of life.<sup>11,13,15,18-21</sup> As of mid-2022, the CDC is in the process of updating its 2016 guidelines for prescribing opioids for chronic pain, which will incorporate new evidence on non-pharmacological and nonopioid treatments.<sup>22</sup>

Despite the promise of nonpharmacological approaches and the widespread interest in them, there are significant challenges to their implementation in clinical settings, which include the complexities of delivering treatment, scarcity of skilled program providers, and lack of understanding among healthcare providers and patients regarding expected treatment outcomes. The advent of the COVID-19 pandemic in 2020 was marked by a shift from non-pharmacological therapies to opioid prescriptions, presumably due to reduced access to treatment options and the relative ease of prescribing.<sup>23</sup> Overall, there is a paucity of reports about the implementation of nonopioid pain management programs and a need to understand how they are delivered in local settings.

## Setting

In Oregon, the opioid prescribing rate has been consistently higher than the national average. In 2015, 84.2 opioid prescriptions were written for every 100 people in the state, compared to a national average of 70.6 prescriptions.<sup>3</sup> That year, Oregon's Medicaid program launched a performance improvement plan aimed at reducing levels of opioid prescribing.<sup>24,25</sup> The initiative utilized numerous strategies that included implementation of prescribing guidelines, prescription monitoring programs, tapering plan support, provider education, and the promotion of nonopioid pain treatment strategies.<sup>24</sup> Many of the strategies were organized and implemented through the state's 16 regional coordinated care organizations (CCOs), which deliver the state Medicaid program under a 1115 Medicaid demonstration waiver.<sup>26</sup> By

2020, Oregon's opioid prescription rate, although still higher than the national average (45.6 vs 43.3), had declined more sharply.<sup>3</sup>

The present study reports on an evaluation of 3 non-pharmacological pain treatment clinics established and funded by the Columbia Pacific CCO (CPCCO), which serves 3 rural counties in northwest Oregon. In 2015 this region ranked highest among Oregon's CCO regions in both the percentage of its patients with filled opioid prescriptions and the average daily morphine milligram equivalent per fill.<sup>25</sup> Among other strategies,<sup>27</sup> CPCCO established and funded the clinics, located in each of its counties, to deliver patient-centered, nonpharmacological pain management programs for patients on long-term opioid treatment.

## Intervention

The clinics' program consists of weekly 3-hour classes for 10 consecutive weeks, teaching a combination of approaches to patient pain management and self-care, including mindfulness training, cognitive-behavioral therapy,<sup>12</sup> and acceptance and commitment therapy<sup>14</sup> from a licensed mental health provider, as well as nutrition education, relaxation techniques, and movement therapy consisting of mild and moderate yoga techniques.<sup>28</sup>

## Research Aims

Our research aims in this study were to (1) examine the perceptions and interpretations of both clinic patients and staff regarding clinic goals, program benefits, communication about treatment, and patients' clinic experiences, and (2) examine the extent to which these perceptions are shared between patients and staff, as well as among patients themselves.

Thus the investigation provides a real-world case study of how a network of small rural clinics, operating under a regional funding structure and following a common treatment model, delivers education about non-pharmacological pain management strategies to patients desiring alternatives to opioid therapy. There is little in the literature about the challenges faced by clinics such as these, the ways in which their programs are coordinated with patients' overall medical care, or the ways that patients navigate their relationships with the programs and their own primary care providers (PCPs). The resulting information can inform the effective delivery of pain management education programs and help promote effective coordination and communication among patients, PCPs, clinics, and clinic funders.

## Design

This study used a descriptive qualitative design incorporating individual interviews with clinic staff and focus group interviews with past and present patients. The study was

conducted and reported with attention to the Standards for Reporting Qualitative Research.<sup>29</sup>

The study protocol was approved by Oregon State University's Institutional Review Board (Study ID 7763). All participants provided signed informed consent.

## Participants

Each clinic had 3 staff members: the clinic coordinator/clinician, the movement/yoga instructor, and the administrative assistant. One individual served as coordinator/clinician for both Clinics 1 and 2; there was no other overlap of personnel across clinics.

The eligible study population for the patient focus groups was defined as individuals ages 18-70 who had participated in at least one 10-week pain clinic course at any of the 3 clinics. Clinic course completion was not necessary for eligibility. Participants were recruited through several avenues over the 3 months preceding the interviews. Recruitment flyers were distributed at the pain clinics, CPCCO primary care practitioners' offices, public health department offices, and urgent care clinics. Pain clinic staff also recruited participants through outreach to past and present clinic patients.

## Methods

### Interview Protocols

Semi-structured interview protocols were developed for the individual interviews with clinic staff and the focus group interviews with clinic patients. The interview protocols were developed with input from the clinic coordinators and the CPCCO medical and quality improvement staff.

Interview topics included the perceived goals for the clinic program, the program's range of benefits to patients, the characteristics of patients who would and would not benefit, the degree to which incoming patients and their PCPs are informed about the clinic, and communication patterns among patients, their PCPs, and clinic personnel. The focus group interview also asked patients about their own experiences with the clinic program and their use of prescription opioids for managing pain. The informed consent procedure made clear to all respondents that they were free to decline to answer any questions.

### Data Collection

The evaluation team visited each clinic for 1 day in May 2017. Staff interviews were conducted individually in a private office with only a single interviewer present. Each clinic coordinator interview was conducted by 1 of the senior research team members (MB, KV). The interviews of the clinics' other staff members (movement/yoga instructors and administrative assistants) were conducted by either MB, KV, or DG.

Each patient focus group interview was conducted by either MB or KV, in a large meeting room with only the participants and interview team present. These researchers were experienced focus group moderators who ensured that all participants had opportunities to contribute. Because of the sensitivity of the topic, demographic information about the focus group participants was not collected, in order to protect anonymity and build participants' trust in the study.

All interviews were digitally audio-recorded. For their participation in the interviews, clinic staff were compensated with a \$40 gift card and patients with a \$50 gift card.

### Data Analysis

All interview recordings were professionally transcribed and the transcripts were checked for accuracy against the audio recordings. The clinic staff were identified in the transcripts of the individual interviews, but anonymity was maintained for the focus group interviews and no patient names were associated with the interview data.

We conducted thematic analysis<sup>30,31</sup> to identify themes within and across respondent groups. The interview data were analyzed using NVivo 11 (QSR International), with all research team members participating in the analysis and interpretation of data. Initial codes were created based on the interview and focus group questions, using a qualitative directed content analysis approach.<sup>32</sup> Following an initial reading of the transcripts by all members of the research team, those codes were revised, additional codes were derived, and an initial codebook was developed. The full coding scheme was refined through discussion among all researchers. A sample of transcripts was then coded independently by all coders to assess intercoder agreement and ensure consistency. Coding discrepancies were resolved through discussion and the codebook was revised accordingly. All transcripts were then coded, and coding summaries were analyzed to identify initial themes and subthemes. The primary themes, for the most part, were derived deductively from the research aims and interview protocols, while the subthemes were generated inductively from the interview data.<sup>33</sup> Within themes and subthemes, similarities and differences between the responses of patients and clinic staff were identified and examined. The final set of themes and subthemes was produced through a joint process of review and revision. Exemplar participant quotes were identified that illustrated each subtheme.

## Results

A total of 9 individual staff interviews, lasting between 30 and 60 minutes, were conducted at the 3 clinic sites. The individual who served as coordinator of Clinics 1 and 2 was interviewed twice, once at each site, to provide site-specific feedback. That coordinator was male; the other 7 clinic personnel were female. The patient focus group interviews all lasted approximately 90 minutes. Altogether, 34 patients participated: 12 (9

women, 3 men) at Clinic 1, 9 (6 women, 3 men) at Clinic 2, and 13 (8 women, 5 men) at Clinic 3.

The analysis resulted in 4 primary themes:

- (1) goals of the clinic program;
- (2) benefits of the clinic program;
- (3) patient characteristics and other factors associated with patients' ability to benefit from the program;
- (4) the coordination of patients' clinic experiences with the care received from their PCPs.

Each of the primary themes encompassed multiple sub-themes. Table 1 presents the themes, subthemes, and illustrative quotes from both patients and clinic staff.

### Theme 1: Goals of the Clinic Program

In describing what they believed the clinic goals to be, participants' responses fell into 4 subthemes: improved quality of life; dealing with or reducing pain; reduced use of opioids; and coordination with healthcare providers (Table 1).

Most patients described the primary goal as helping patients to live with chronic pain, and to reduce that pain to the degree possible. Some also described a clinic goal being to help them reduce their perception or awareness of pain.

Most patients generally understood that the reduction of opioid use was a secondary goal that, ideally, could occur in most cases with achievement of improved pain management. But there was some inconsistency among patients' responses, as several of them identified opioid reduction as a clear and distinct primary clinic goal.

The clinic personnel were more consistent in describing the treatment goals. They stated that the primary goal of the clinics was to improve patients' daily functioning and quality of life (QOL) by helping them to manage – not eliminate – their chronic pain. With respect to the reduction of opioid use, the clinic coordinators and other staff members acknowledged and endorsed the importance of opioid use reduction in pain management, but said that they did not consider this reduction to be their primary goal. They noted that not all patients entering the program are clear about this distinction. One clinic coordinator also stated that reducing or controlling healthcare costs was an additional intended goal of the CCO that funds the clinic.

### Theme 2: Benefits of the Clinic Program

The discussion about program benefits revealed a broader array of potential impacts than would be indicated by the responses about intended goals. This primary theme had 6 subthemes: skills in self-management of pain; reduction of opioid use; improved QOL; increased physical mobility and activity; patients' enhanced ability to cooperatively manage care with their medical professionals; and reduction of social

isolation. Clinic staff members' descriptions of benefits corresponded fairly closely with patients' descriptions.

Learning how to live with pain was the program benefit described by patients most frequently and in most detail. Many of the pain management tools taught in the clinics, particularly movement, mindfulness, and nutrition, were specifically cited as contributing to program effectiveness.

Several patients reported that their pain had diminished, often citing their practice of yoga and other movement exercises as contributing factors. However, many patients distinguished between *reducing* pain and *dealing with* pain as separate concepts. The latter involves accepting that pain is a part of one's life, learning to reinterpret one's pain or distract oneself from it, and resolving to be active in life despite its presence. In the Clinic 2 focus group, participants spoke in detail about 2 reinterpretation strategies that the program had taught them. One was to personify one's pain, giving it a name ("Bryan"), as an aid in dealing with it. The second was to be on the lookout for what were called "black duck" moments, periods during the day when pain has temporarily and unexpectedly receded. The awareness and appreciation of such moments was reassuring and motivational for many patients, who recounted that they found these symbolic interpretations particularly helpful. For example:

"Bryan is the pain...He's the unwelcome guest, gonna be a guest whether you want him or not...You go on and do your stuff, and he can just hang around there and you can ignore him, you know, because he might give up and go away."

"Sometimes when you're in pain, you're using words like *always* and *never*, and all these concrete words. And the black duck moments are when you also see that it isn't *always* and it isn't *never*. That's when you recognize those moments."

### Reductions in Opioid Use

About half of the patients in all 3 focus groups volunteered information about their reduction in opioid use as a result of program participation. A few of these patients reported complete elimination, but most reported continued use at lower levels or reduced frequency.

Some patients reported feeling social pressure within their clinic peer group to reduce their level of opioid use, while others described feeling free to make that decision on their own. To the extent that such social norms existed, it appeared to be a phenomenon generated by the peer group itself. The clinic staff consciously tried to stay neutral on the issue of opioid use reduction.

On the subtheme of cooperatively managing their care, numerous patients reported increased skill and intention to actively partner with physicians around their care and to advocate for their own needs. Patients expressed that the clinic provided them with information and language to describe pain symptoms, articulate strategies they were using for pain management, and ask for additional tools to manage their pain

**Table 1.** Themes and subthemes from the patient focus groups and individual staff interviews.

Primary Themes		Illustrative Quotes	
	Subthemes	Quotes from Patients	Quotes from Clinic Staff
I. Goals of the clinic program	I.1 Improved quality of life	"To have a better life." ( <i>Clinic 1</i> )	"My goal is improving the quality of their life. Plain and simple." ( <i>Coordinator, Clinic 1</i> )
		"To better your life, quality of life." ( <i>Clinic 2</i> )	"The goals are varied... Obviously we are hoping to alleviate some pain, alleviate suffering, but even more than that and beyond that, I think we are hoping to improve quality of life even if pain persists, even if we can't reduce pain level." ( <i>Coordinator, Clinic 3</i> )
	I.2 Dealing with or reducing pain	"I think they attempt, and they do a good job, of refocusing your thoughts about pain... It's not to distract you from the pain but it allows you to think about your pain in different, in a different realm, ... to let you know that the pain doesn't have to control you." ( <i>Clinic 2</i> )	"To help people better understand what chronic pain is, and how to work with it in integrative ways and mindfulness ways, so that they're not relying wholly on pain medication." ( <i>Movement therapist, Clinic 1</i> )
		"To help people really get through pain without the use of opioids." ( <i>Clinic 3</i> )	"My goals are to help improve the quality of a person's life, and if, in improving the quality of a person's life, that happens to reduce their reliance on opioids, that's good." ( <i>Coordinator, Clinic 1</i> )
I.3 Reduced use of opioids	"My understanding when I came into the program was that you wouldn't have to take opiates. And I liked that idea." ( <i>Clinic 1</i> )		
I.4 Coordination with PCPs, reduction in healthcare costs	—		"One of my goals is to be a resource to the medical providers as they are having conversations with their patients about managing pain, and I hope that they are seeing us as an important part of the treatment plan." ( <i>Coordinator, Clinic 3</i> )

(continued)

Table 1. (continued)

Primary Themes	Subthemes	Illustrative Quotes	Quotes from Patients	Quotes from Clinic Staff	
2. Benefits of the clinic program	2.1 Skills in self-management of pain		<p>“[The clinic program] isn’t going to end your pain... What it’s going to do is help you deal with that pain where you can live with it as part of your life.” (Clinic 3)</p>	<p>“I think a lot of people find that they are coping with their pain better, even though the physical pain may be unchanged. A lot of our curriculum comes from the acceptance and commitment therapy model, which is kind of the idea that you accept what you can’t change and you work on what you can.” (Coordinator, Clinic 3)</p>	
			<p>“When I hurt my back in 2014, I stopped being able to sleep in a bed...I could only sleep 2 hours at a time and I wanted to find a way to sleep for 5 hours or 6 hours... This class provided me with some tools to do that...It was finding options that would allow me to help my body to relax so I could sleep again without having to take [raises voice] hydrocodone, hydrocodone, hydrocodone, or whatever.” (Clinic 3)</p>	<p>“I think the biggest [benefit] is building the mindfulness. That’s what I’ve heard more than anything else, is that it’s just something they’ve never really thought of. And so it’s like, ‘Oh, I can actually pay attention, and I don’t have to run away from my pain, and I can actually work with it, with things that I have within myself.’” (Movement therapist, Clinic 1)</p>	
	2.2 Reduction of opioid use for pain management		<p>“There have been a lot of occasions where I wanted to take 2 or 3 more of the pills and I’ve been able to do the exercises and go, ‘I can wait 3 or 4 more hours.’” (Clinic 3)</p>		<p>“Well, a lot of folks report later that they are not taking opioids, or they reduced their reliance on opioid medication. So that’s volunteered, you know, by the participants. I don’t particularly ask them.” (Coordinator, Clinic 1)</p>
			<p>“Yeah, I was on a low dose of narco... And listening to people in the class I thought, I can really live without it.” (Clinic 2)</p> <p>“Mine [medication level] stayed the same but I enjoy life more.” (Clinic 1)</p>		
	2.3 Improved quality of life			<p>“I do mostly moving, doing our exercises, our yoga. I get out and do a lot of walking, and the kids and I – my kids they go, they’re older, youngest one’s graduating this year – he’s going. ‘Slow down dad, you walk too fast. I’m the one with pain but I’m walking too fast? Okay! I’ll tell you, yeah!’” (Clinic 2)</p>	<p>“It starts out, ‘You’re trying to get us off our opioids,’ which is not my goal, my goal is to improve the quality of life. And I think they begin to realize that, and they really buy into the process of using alternative means.” (Coordinator, Clinic 2)</p> <p>“In the movement portion of class they often reach some very measurable and observable benefits of having improved range of motion, improved tolerance for physical activity, improved confidence with their ability to do exercise.” (Coordinator, Clinic 3)</p>
				<p>“I used to always just agree with my doctor, whatever he thinks. And this taught me to speak up, and whatever I think is what counts.” (Clinic 1)</p> <p>“They put me on 100 mg and now I’m down to 10 mg, but yeah, you got to stick up for yourself on the pain meds. If you don’t, they will have you just drooling in your chair.” (Clinic 1)</p>	
2.4 Increased physical mobility and activity			<p>“I have a tendency to isolate myself and [the clinic program] was good for me socially, because I felt like I had to come, I had to be here. Once I was here, loved it.” (Clinic 2)</p>		
			<p>“I’m not sitting in the dark or staying away from the family no more. We go do things. I socialize.” (Clinic 2)</p>		
2.5 Patients’ enhanced ability to cooperatively manage care with their medical professionals			<p>“This is a population of people who are often very isolated both physically and socially and emotionally... So to come to a place like this where they can be around people who know what it is like and they can feel safe and they can let themselves be kind of vulnerable and open up about stuff like that, for a lot of them it’s really powerful.” (Coordinator, Clinic 3)</p>		
2.6 Reduction of social isolation					

(continued)

Table 1. (continued)

Illustrative Quotes	
Primary Themes	Quotes from Clinic Staff
3. Patient characteristics and other factors associated with patients' ability to benefit from the program	Quotes from Patients
3.1 Attitudinal openness to nonpharmacological forms of pain therapy	"I think you have to have an open mind... it works more if you are willing to think something might work other than meds." ( <i>Clinic 1</i> )
3.2 Being predisposed toward active self-management of one's chronic pain	"I think people that are very – they're definitely, you know – 'pain medication or nothing else' attitudes. Unfortunately I don't think they're going to benefit from this." ( <i>Clinic 3</i> ) "If a person is convinced that they need pain meds, if they're convinced they need to mask the pain, then they're not going to want to come and learn how to cope and handle their pain. They want to take a pill and make the pain go away. They don't want to learn how to embrace the problem and deal with it." ( <i>Clinic 3</i> )
3.3 Clinic attendance due to one's own decision rather than pressure from PCP	—
4. Coordination of patients' clinic experiences with the care received from their primary care providers	Quotes from Clinic Staff
4.1 Awareness and support from patients' PCPs for their clinic participation	"I think that there is a misconception by a lot of doctors that their patients aren't working hard on this problem when I think a lot of them are... I want the doctors to know how hard their patients worked... So I give my firsthand observations of how [the patients] did. And if I have any recommendations I will put that in there. I have never gotten a response to that... Never gotten feedback. So I don't know if they are getting them, reading them, thinking about them." ( <i>Coordinator, Clinic 3</i> ) "It started out, you have to have a referral from a physician and then you have the orientation. And then we decided, let's just open it up to folks who are interested in the program, which has really worked out well, because if you don't have a referral, we will help get a referral from your PCP." ( <i>Coordinator, Clinic 1</i> )
4.2 Clinic referral process	—

Note: The coordinator of Clinics 1 and 2 is the same individual, who provided a separate interview for each clinic.

successfully. Some patients also said that they were now more willing to disagree with their providers and assert their own preferences.

### ***Theme 3: Patient Characteristics and Other Factors Associated With Patients' Ability to Benefit From the Clinic Program***

The third primary theme involved the characteristics of patients who would, and would not, benefit from the clinic programs. Patient and staff responses coalesced around 3 subthemes: attitudinal openness to nonpharmacological forms of pain therapy; being predisposed toward active self-management of one's chronic pain; and clinic attendance being due to one's own decision rather than pressure from one's primary provider.

With regard to the first subtheme, participants expressed strongly that prospective clinic patients need to endorse the possibility – though it is certainly not a guarantee – that the clinics' programmatic elements such as mindfulness training, yoga, body movement and diet can be effective tools for mitigating their pain. Both patients and staff members observed that some patients who enter the program disparage these strategies, whether due to unfamiliarity with them or a belief that only medication can alleviate their pain, and that those individuals are unlikely to benefit and often drop out early.

With regard to the second subtheme, comments from both patients and staff showed strong concordance that pain patients need to be prepared to expend significant effort in pain management, rather than viewing their pain as a problem that will be fixed by a health provider. This perspective also involves an acceptance that although the various pain management strategies can help to alleviate pain and improve daily functioning and QOL, one should expect that pain will likely remain to some extent, and improvements will be incremental rather than absolute.

The third subtheme was expressed primarily by clinic staff. They noted that some prospective patients enrolled because of strong encouragement or pressure from their providers, without being intrinsically motivated themselves to explore the program. This lack of commitment would often result in their leaving the program before its completion.

### ***Theme 4: Coordination of Patients' Clinic Experiences With the Care Received From Their PCPs***

Both patients and clinic staff were asked about the coordination of patients' clinic participation with the other components of their healthcare, particularly their relationships with their PCPs. Two subthemes were identified: awareness and support from patients' PCPs for their clinic participation; and the clinic referral process.

With regard to provider support, several patients reported having actively discussed their clinic participation with their

providers, but the majority of patients reported that their physicians knew little about the clinic. Indeed, several patients related that their PCPs expressed attitudes that were un-supportive of their clinic participation and dismissive of the clinic program's potential for achieving goals of opioid reduction or other benefits.

Adding to that picture, clinic staff expressed that PCPs can be instrumental in helping patients overcome psychological barriers to treatment. However, the clinic coordinators also reported that they had made consistent efforts to engage PCPs, with little response. Their perception was that in most cases the providers appeared to be uninvolved in their patients' clinic experiences or the details of their progress in the program. Each of the coordinators noted that they provide regular updates on patient progress as well as a final report to the PCPs, but see little evidence that those communications are received and read.

The second subtheme, the process through which patients are referred to the clinic, was a subject mentioned by the clinic staff. They noted that the referral process can be designed in certain ways that promote closer communication between PCPs and the clinics, engage the providers in the clinic programs, and help them support their patients' self-management following clinic participation.

## **Discussion**

Several primary insights emerged from the interviews. First, the clinic staff were clear in defining their primary goal as improving patients' QOL rather than reducing their opioid use. Most, but not all, patients understood this. Second, the interviews revealed that there was considerable variability in PCPs' understanding and support of the clinic program, even among providers who had referred patients to the clinics. Most notably, providers may not have been clear about the relative emphases placed on the goals involving QOL and opioid reduction, respectively. Third, respondents identified a range of specific program benefits including greater skills in the self-management of pain, enhanced ability to express their needs and wishes in interactions with their PCPs, increased physical mobility, reduction of social isolation, and, in many cases, reductions in opioid use. Finally, respondents identified several patient characteristics that improve the prospects for treatment success, including openness to behavioral and psychological strategies that don't involve medications, realistic expectations about pain outcomes, and readiness to engage in active self-management of pain.

These findings, together with existing research, suggest several practice-oriented lessons and recommendations for clinics using nonpharmacological approaches. First, the delineation and communication of treatment goals can be a complex task, and patients may not have clearly articulated pain management goals upon entering a program. For example, a study by Bauer and colleagues<sup>34</sup> found that patients' goal-setting gradually became more focused and strategic over



the course of a 4-month pain self-management program. Thus, goal-setting should be an explicit focus at the outset of a pain management program, and goals must be aligned between patients and their providers.

For some prospective clinic patients in our study, the clinics' primary goal of working to improve QOL rather than explicitly reducing opioid use appears to have been instrumental in attracting them to the clinic and enabling their program completion. Although the reduction of opioid use was, of course, valued as a highly desirable outcome by clinic staff, patients were encouraged to take the lead in driving the scope and timing of that process. Many patients reported doing so successfully, whereas others sought outcomes more clearly characterized as QOL-related.

A second lesson is that an orientation toward active self-management of one's pain is a central component of non-pharmacological approaches. Those patients who reported satisfactory program outcomes tended to see themselves as partners in treatment-related decision-making rather than passive recipients of prescriptions and other decisions by providers about their care. An expectation of active self-management, in varied forms, was a key element for most patients who reported positive program outcomes. A corollary view that emerged from the interviews is the importance of believing that life can be improved even if pain is not eliminated. Respondents were in consensus that patients need to be prepared to do hard work in establishing a lifestyle that includes living with pain. Both patients and clinic staff observed that individuals who do not have that orientation will most likely not benefit from the program or not complete it. Several previous studies have confirmed that realistic expectations about living with pain are an important component of successful pain self-management.<sup>35,36</sup>

These findings complement previous studies that have sought to understand person-level factors that may underlie the effectiveness of pain self-management strategies.<sup>37</sup> For example, Hardman et al.<sup>38,39</sup> found that engagement with a pain self-management program was higher for those patients who held a multifactorial view about the cause of their pain, i.e., believing that it was caused by social and environmental factors in addition to purely anatomical/physiological reasons.<sup>38</sup> Broderick et al.<sup>37</sup> found that a cognitive-behavioral therapy program was less effective for patients who had a pain coping style characterized by difficult relationships within their social circles.

Thus, a priority for ongoing research should be to more fully understand the psychology of being oriented toward active self-management of one's pain, which in our study was a characteristic highlighted as important by both patients and staff. Gaining proficiency in self-management of pain is a gradual process for which clear goal-setting, a sense of self-efficacy, and support from one's social support network have all been found to be influential factors.<sup>34,35,39,40</sup>

A third lesson from our study is the importance of the role of patients' PCPs with respect to referral to the clinic and

progress in the program, and the challenges that may be inherent in establishing close alignment of treatment expectations between patient, provider, and clinic. Clinic staff reported that they coordinated with PCPs or their offices during the referral process, but that in most cases the PCPs did not participate in further communication once the program was underway, despite the clinics sending regular reports on the progress of each patient. The generally low levels of PCP engagement were corroborated in the reports of most patients, many of whom were unsure what exactly their providers knew about the clinic program, either at the time of referral or afterwards.

Previous research has identified the importance of patient-provider communications about chronic pain management in influencing patient adherence and overall treatment effectiveness,<sup>41</sup> as well as the potential complexities and challenges associated with these communications with regard to primary treatment goals and the assessment of risks and benefits of treatment options.<sup>42-45</sup> For example, one study found that the pain management goals of patients and their physicians differed markedly, with patients being focused primarily on reducing pain intensity and diagnosing the cause of pain while physicians were focused primarily on improving functioning and minimizing side effects.<sup>43</sup> Such differences can complicate decisions about patients' enrollment in treatment programs, and may be exacerbated when patients and providers have limited or incorrect information. In particular, if a clinic allows patients to determine their own opioid-related goals, as was the case in our present study, then this approach and its underlying rationale must be communicated to PCPs who may be unclear about this orientation when referring their patients to the clinic.

Although there is considerable research examining communication patterns between patients and their PCPs about chronic pain treatment, the literature is sparse with regard to communication between patients' providers and external programs such as those in this study. However, echoing our present findings that revealed challenges in communication between the clinics and patients' PCPs, a qualitative study of veterans' experiences with nonpharmacological pain treatments similarly found that numerous patients reported difficulties with regard to the coordination of their care across multiple facilities, including local clinics that offered alternative pain management therapies.<sup>36</sup> This is a topic that requires further investigation in program and policy evaluation studies.

### Study Limitations

Several limitations of this study should be noted. First, the 3 clinics shared the same funder and used one consistent, broadly based treatment approach. Other studies will be necessary to determine how broadly this study's findings might be replicated using a range of nonpharmacological approaches. Second, the focus group participants should not be considered representative of all patients who have

participated in the clinic programs. They were recruited largely through clinic contacts, and thus they may have been more likely to have maintained ties with the clinic after their program participation, compared to past patients who were more difficult to contact. Nevertheless, patients who were no longer in contact with the clinics did have opportunities to see the recruitment materials, and the participant incentive of a \$50 gift card was intended, in part, to attract those former patients.

## Conclusion

In this study, a combination of nonpharmacological approaches including mindfulness, cognitive-behavioral therapy, acceptance and commitment therapy, movement exercises, yoga, and nutrition was found to be effective for at least some patients in helping them deal with chronic pain, with wide-ranging benefits that addressed dimensions of QOL as well as opioid reduction. Patients were empowered to determine their own goals with regard to use of opioids or other medications, while learning to use an array of psychological and behavioral pain management strategies. One of the frequently mentioned challenges to program success was inconsistent coordination of clinic programming with patients' PCPs. Nonpharmacological pain clinics such as those in this study need to be fully integrated into the healthcare system, so that their programs can become widely available to people living with chronic pain and can support the multiple dimensions of their medical care.

### So What? (Implications for Health Promotion Practitioners and Researchers)

#### 1. What is already known on this topic?

For people with chronic pain, opioid therapy has limited effectiveness and poses addiction risk. Nonpharmacological treatments for chronic pain have shown promise in helping patients live with pain and improve quality of life (QOL). However, there are few reported evaluations of how they function in local settings.

#### 2. What does this article add?

Interviews with patients and staff found that a combination of psychological and behavioral approaches produced QOL benefits for many chronic pain patients. Clinics permitted patients to set their own opioid reduction-related goals, and many reported success in reducing opioid dependence. However, patients' primary care providers were not always clear about this approach.

### 3. What are the implications for health promotion practice or research?

These results provide supportive evidence for the effectiveness of nonpharmacological pain treatments and provide practice-based insights on how to make them successful. There should be consistency in treatment goals as understood by patients, their primary providers, and the clinic. The success of these programs will depend on their integration with the overall course of patients' care.

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## Acknowledgments

We thank the personnel of the North Coast Pain Clinic, the Ivy Avenue Wellness Center, and the Revitalize Wellness Center for the critical work that they do and their assistance in facilitating data collection. We also thank Dr Safina Koreishi of the Columbia Pacific Coordinated Care Organization for her leadership and support. We are also grateful for the assistance of the Oregon State University Center for Health Innovation, Dr Jangho Yoon, Dr Abby Mulcahy, and Timothy Kang. Finally, we thank Dr Kathleen Conte and Dr Katherine MacTavish for their valuable comments on an earlier draft of this article.

## Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by funding from CareOregon, Portland OR.

## Ethical approval

Approved by Oregon State University Institutional Review Board, Study ID 7763

## Consent to participate

All participants provided signed informed consent.

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