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Original Research Article

How Do Patients with Chronic Pain Benefit from a Peer-Supported Pain Self-Management Intervention? A Qualitative Investigation

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Abstract

Objective. Peer support is a novel and understudied approach to the management of chronic pain. This study's purpose was to uncover the elements of a peer-supported self-management intervention that are perceived by participants as essential to achieving positive changes.

Design. Qualitative, semi-structured interviews.

Methods. Veterans and veteran peer coaches who participated in a pilot study of peer support Improving Pain using Peer-Reinforced Self-Management Strategies (IMPPRESS, NCT01748227) took part in qualitative semi-structured interviews after completing the 4-month intervention. Questions were designed to facilitate understanding of how participants experienced the intervention. An immersion/crystallization approach was used to analyze data.

Results. All 26 peer coaches and patients who completed the intervention were interviewed. Qualitative analysis revealed three elements of IMPPRESS that peer coaches and patients believed conferred benefit: 1) making interpersonal connections; 2) providing/receiving encouragement and support; and 3) facilitating the use of pain self-management strategies.

Conclusions. Peer support represents a promising approach to chronic pain management that merits further study. The current study helps to identify intervention elements perceived by participants to be important in achieving positive results. Understanding how peer support may benefit patients is essential to optimize the effectiveness of peer support interventions and increase the implementation potential of peer-supported pain self-management into clinical practice.

Key Words. Pain Self-Management; Peer Support; Chronic Pain; Veterans; Qualitative Research

Introduction

Pain affects at least 100 million Americans, reduces quality of life, and is associated with emotional distress when it interferes with work, social and recreational activities, and family life [1]. Analgesics, including opioid

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analgesics, are not always effective, and often produce undesirable and sometimes dangerous side effects [2,3]. A critical component of chronic pain management, as recognized by the Institute of Medicine and Department of Veterans Affairs, is pain self-management [1,4]. Defined as "the ability to manage the symptoms, treatment, physical and psychosocial consequences, and life-style changes inherent in living with a chronic condition," [5] pain self-management is an effective, evidence-based approach to chronic pain management [6–8]. Yet clinicians frequently lack the time and resources to provide self-management information and support.

Peer support is increasingly recognized as an alternative model to deliver information and support related to the management of chronic conditions. Peer support is "a unique type of social support provided by those who share characteristics with the person being supported and is intentionally fostered within formal interventions" [9]. As such, peer coaches' roles extend beyond that of "natural lay helpers" (i.e., individuals within one's social network who provide informal support but might not have the same condition as the person receiving support). At the same time, however, peer coaches are not "paraprofessionals" (i.e., individuals who have received extensive training and consequently identify to a greater degree with health care professionals than with the person receiving support) [9,10]. Peer support interventions have been applied in conditions such as diabetes [11–13], mental health [14,15], weight loss [16], HIV [17,18], and others. However, despite research in numerous health conditions, there is a notable absence of studies of peer support for pain self-management.

Given the importance of pain self-management and the promising results of peer support in other chronic conditions, we pilot tested a peer support intervention for patients with chronic musculoskeletal pain (Improving Pain using Peer-Reinforced Self-Management Strategies, IMPPRESS, NCT01748227) and found improvements in pain intensity and interference, self-efficacy, perceived social support, pain cognitions, and patient activation [19]. Findings from the IMPPRESS pilot study suggest that peer-supported pain self-management may play an important role in positive changes for patients with chronic pain. Despite promising effectiveness data from IMPPRESS and peer support studies in other conditions, little is known about what actually occurs in peer support interventions and the value participants place on the different elements that comprise such interventions [9]. As a result, *how* peer support may benefit patients is not well understood. Understanding the aspects of peer support most valued by patients is essential for future research, as peer support interventions for pain self-management continue to be developed and refined. Gaining a better understanding of participants' experiences with peer support in pain management can provide valuable data to optimize the effectiveness of these interventions and facilitate implementation of peer-supported pain self-management into clinical practice.

The purpose of this article is to understand how patients and peer coaches experienced the IMPPRESS peer support intervention and to identify elements of the intervention perceived by participants to be most effective.

Methods

This article reports results from the qualitative portion of a pilot study of peer support for veterans with chronic pain (Improving Pain using Peer-Reinforced Self-Management Strategies, IMPPRESS, NCT01748227). Details and study results are reported elsewhere [19]. All procedures were approved by the local Institutional Review Board and medical center research committee; all participants completed informed consent and Health Insurance Portability and Accountability Act (HIPAA) authorization forms prior to participation.

Briefly, IMPPRESS enrolled 30 veterans: 10 peer coaches and 20 veteran patients. All 30 participants were male veterans with chronic musculoskeletal pain (6 months or greater in duration). Peer coaches had prior exposure to pain self-management through participation in a prior pain study [7]. Patients were asked what number on a 0 (no pain) to 10 (worst pain imaginable) scale best described their average and worst pain in the last week. If their answer was ≥ 5 on either question, they were eligible for participation. Peer coaches and patients were ineligible for participation if they had been hospitalized for substance abuse or psychiatric reasons within the last 6 months, had a serious medical condition (e.g., New York Heart Association Class III or IV heart failure), severe hearing or speech impairment, or active suicidal ideation. Potential patients were also excluded if they had prior or pending back surgery.

After recruitment, the 10 peer coaches attended a 3-hour training session focused on pain self-management, and were then assigned two veterans each to work with one-on-one during the 4-month intervention period. Peer coaches were asked to contact each of their assigned veterans every two weeks, for a total of eight contacts during the 4-month period. Pairs (peer coach/veteran patient) conducted meetings in person, by telephone, or a combination, depending on their needs and preferences. Peer coaches were trained to work with their assigned patients on pain self-management strategies, and were asked to engage in goal-setting with patients, including setting and following up on goals and modifying or changing if necessary. Peer coaches were asked to share their own experiences with self-management, as well as to engage in informal, social conversation when comfortable and appropriate. All participants were given a study manual, which contained information about pain self-management. The manual, adapted from a previous pain self-management study [7], comprised eight sections: 1) Introduction to Pain Self-Management; 2) Pain Education; 3) Activity Pacing; 4) Relaxation Skills; 5) Self-Care Skills; 6) Interpersonal Skills; 7) Relapse Prevention; and 8) Informational

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Resources. In addition, peer coaches' study manuals included a section entitled "How to be a Peer," which was adapted from the VA Peer Specialist Manual from the VA Office of Mental Health Services, and outlined expectations and guidance for peer coaches.

All 26 participants who completed the intervention (n = 9 peer coaches, n = 17 veterans) participated in a semi-structured, face-to-face qualitative interview, conducted by research staff experienced in qualitative interviewing. All interviews occurred at the 4-month outcome assessment, immediately after the intervention's completion. The purpose of the interview was to understand participants' experiences with the intervention. Interviews began with a broad question asking participants to describe their experience with the IMPPRESS intervention. Additional questions asked about what was discussed during peer coach/veteran meetings, what participants believed to be most and least helpful for their own pain management, and how the intervention could be improved. Peer coaches were specifically asked about the peer coach training, the ongoing supervision, and the perceived benefits and challenges associated with serving as a peer coach. Interviews were audio recorded, professionally transcribed, checked for accuracy, and de-identified.

Data Analysis

The analytic team consisted of a communication scientist, two clinical psychologists, and a general internist. Data analysis was guided by an immersion/crystallization approach [20], led by the first author, and consisted of two broad phases: open coding and focused coding [20,21]. During open coding, team members read all transcripts to gain a general understanding of the data and variation within and across participants. Emergent themes (codes) were extracted, and iteratively refined through multiple readings, by adding, combining, or deleting. Preliminary codes were applied to transcripts while continuing to refine codes to reflect meanings in the data. During the second phase, focused coding, the first author applied the codes derived in phase 1 to all 26 transcripts. One quarter (n = 7) of transcripts were analyzed individually by all members of the analytic team to allow comparison and ensure consistency in coding. Throughout data analysis, analysts practiced reflexivity (i.e., reflecting back on one's own knowledge and background and how this may influence interpretation of the data) and sought out negative cases that might lead to alternative interpretations of the data [22,23]. Discrepancies were resolved by consensus. All authors participated in the interpretation of the results in phase 2.

Results

Peer coaches' ages ranged from 50–71 years (Mean = 60). Seven were white, one black, one Hispanic. Veteran patients' ages ranged from 35–66 (Mean = 58). Nine were white; eight were black. Patients' pain locations were low back (n = 8), neck [6], knees [1], shoulders [1], "everywhere" [1].

As participants described their experiences with IMPPRESS, three elements of the intervention emerged as the most highly valued: 1) making interpersonal connections; 2) providing/receiving encouragement and support; and 3) facilitating the use of pain self-management strategies (see Figure 1).

Making Interpersonal Connections

Participants valued the purely social nature of connecting with another veteran, being able to get to know one another, and having the opportunity to discuss common interests that were often unrelated to pain. When asked what the most important parts of the intervention were, participants immediately pointed to the social connections fostered by being partnered with another veteran. One veteran patient noted that the most important part of IMPPRESS for him was "communication with somebody. Communication and input" (Veteran 201).

Another veteran expanded on this idea, noting the importance of social contact as a distraction or diversion:

> I think what was most beneficial is taking the time out of your regular day and just sitting down and discussing and relaxing, and then putting everything behind you, forgetting things for an hour or so (Veteran 204).

The social contact was especially appreciated by one veteran who described himself as socially isolated:

> Interviewer: What was the most important part of the peer program for you?
> Veteran: The times where we could just talk. Not necessarily about the pain, 'cause, well, for me, I don't normally talk to other people. (Veteran 203)

As the above participant noted, the social connections experienced in the study extended well beyond discussions about pain management. Another participant remarked, "We didn't always talk about just pain. We talked about fishing and him going to work on his farm, and stuff like that. You know, just interacting." (Veteran 210)

Although many participants valued the interpersonal connections made with others, one participant went on to explain why he believed these connections are valuable: "Because communication, when you talk to someone, that takes a lot of stress away; it takes a lot of loneliness away; it takes a lot of depression away. Medications can't always do that" (Veteran 213).

Peer coaches, too, described the value of connecting socially with others:

> I guess the really most important part [of the intervention] was the opportunity to you know, kind of engage someone else. I think that's…I mean, I am

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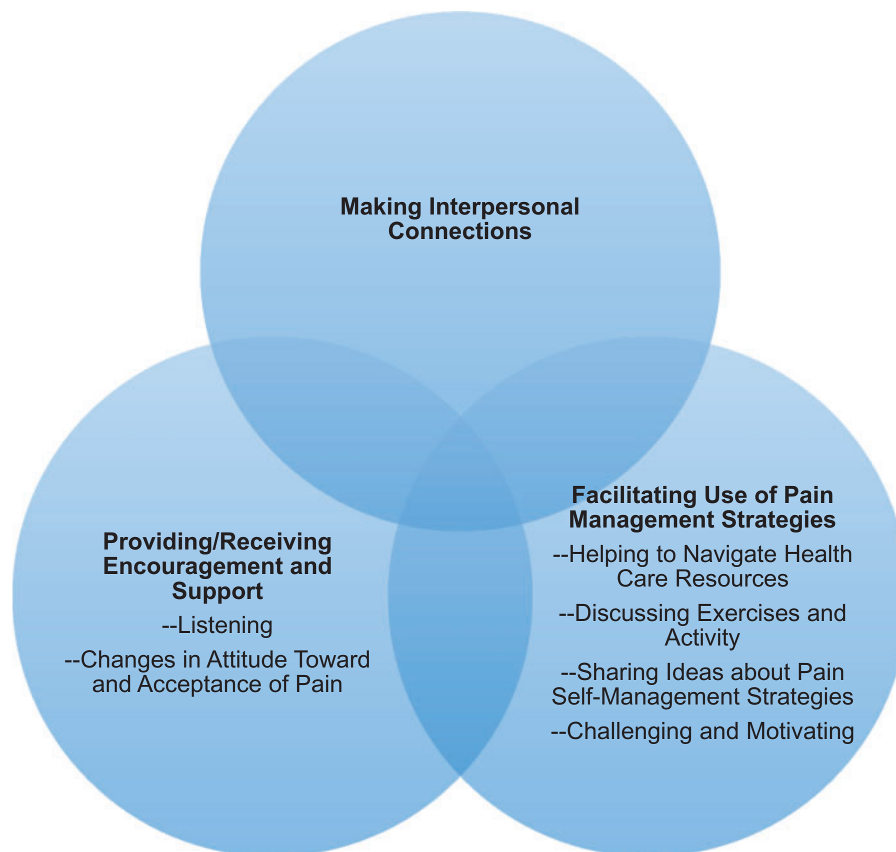

Figure 1 Essential elements of peer-supported pain self-management.

> not much to look at, but I enjoy meeting other people, you know? And that was cool. I think as we talk among ourselves, we learn about each other and. . .I profit from that, too, just the interaction, you know.

This peer coach went on to say of his veterans, "They welcome my phone calls. We've gotten to be great friends. It was really fun to me" (Peer Coach 111).

Another peer coach shared that his favorite part about working with his veterans was "getting to know them. . .getting to know their private life, their situation. As time went on and they got more comfortable, they'd share funny stories. And so, just the interpersonal contact with somebody, getting to know somebody new, that's always fun, rewarding" (Peer Coach 106).

Providing/Receiving Encouragement and Support

The social contacts that veterans and their peer coaches made with one another demonstrated value beyond simply forging connections with another person. Participants described giving and receiving encouragement and support as they sought to manage their pain. Sometimes this encouragement was more general, as the following peer coach described:

> I'll e-mail [my veterans], or I'll send them text messages or stuff like this you know. They'll go, "Hey there's someone out that cares, that's thinking about you." And when my one veteran, he has a family and everything like this, but like he said, you know, he couldn't talk to his wife or kids about the amount of pain that he's having because they just didn't understand (Peer Coach 111).

Listening

For many, listening was a key component of the peer support experience. One participant said of his peer coach, "He's a real understanding guy. He listens. He knows when to listen. He knows when to talk. He don't give you any advice or anything like that. He just tells you his experiences and stuff and lets you decide what to do on your own" (Veteran 207).

Another veteran said that he told his peer coach, "You were a shoulder, you know, not to cry on, but I was able to talk to you, uh, hear myself, so that, you know. There's not a whole lot of people that are gonna sit and listen" (Veteran 201).

Other participants also spoke of the importance of listening:

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"He [peer coach] is a very good listener" (Veteran 213).

"I really appreciate him [peer coach], that he's a good listener and he gives me really good advice" (Veteran 215).

The most important part of IMPPRESS was "somebody to talk to, that'll listen to you" (Veteran 219).

Changes in Attitude Toward and Acceptance of Pain

Participants described not just the importance of having someone to talk to, but that being partnered with someone with similar pain experiences led to greater acceptance of their pain, a more positive attitude, and the ability not to let pain be in control. One veteran explained that:

> It's so much better if you talk to someone, and if that person understands what you're going through. But I think the program itself has changed a lot of things in the way I think, as far as pain and acceptance is concerned. One of the things I really learned is that you don't have to let pain decide for you how your day is gonna be and how your life is gonna be. And, just putting into practice some of the things that [my peer coach and I] talked about, just getting out and moving around, you know in the nice weather and what not, and just going and walk somewhat, it's just been great. So, it's a really good program. I'm glad I got involved with it, and just taking medication really doesn't help. If you have someone to talk to that understands what you're going through it makes a ton of difference, it really does (Veteran 213).

This veteran went on to explain how his thinking has changed:

"Instead of thinking about what I can't do, I like to think about what I can do. That's more fun. It's a lot more fun. It gives the day a better outlook" (Veteran 213).

Other participants experienced similar changes in their attitudes toward their pain.

> I think my outlook changed a little bit on pain…I didn't think I would enjoy talking to anyone about my pain…but you know, overall it I think that helps. Just having somebody to talk to, I think that was impacting to me, and I didn't expect to feel a benefit from that. (Veteran 220)
>
> I'm feeling a little more, um, let's say hopeful, rather than dead-ended. And I think that was a lot in response to [my peer coach's] feedback…So, little things are becoming more positive. I don't feel as destitute….Because I'm feeling a little bit better….Now I see things and it's understanding I don't have to feel despondent about it, which I was before. So that's all really changed (Veteran 201).

Although the majority of comments related to positive changes in attitudes toward pain came from the veteran participants, one peer coach described the change he experienced during the study:

> Well [participating in IMPPRESS] probably strengthened my resolve and my ability to deal with my own pain. [The pain] was taking part of my life… I could tell that I was letting it control me once in awhile, and now, I feel like I'm probably controlling my pain more. Even if it's still there and I'm experiencing it, I'm not letting it affect my social life or the way I interact with people. I think you realize that, you know, this is something that you have control over, you can endure it, you can lick it and get on (Peer Coach 106).

Not everyone described experiencing positive changes related to coping with pain. One participant said simply, "If you're in pain, you're in pain, and there is no other way to think of it. You know, you're in pain" (Veteran 214).

Facilitating the Use of Pain Self-Management Strategies

The IMPPRESS intervention focused on pain self-management, delivered and supported by peer coaches. As a result, many of the benefits participants described were related specifically to learning pain self-management skills. Sometimes self-management facilitation involved peer coaches helping to connect patients with resources related, either directly or indirectly, to their pain management. Other times participants described sharing specific self-management activities or exercises, including ideas on specific strategies. In addition, participants described challenging, or being challenged, by their peer coaches in their self-management.

Helping Veterans to Navigate Health Care Resources

One peer coach described helping his veteran reconnect with the MOVE program for weight loss:

> He had dropped out [of MOVE] and I was able to successfully get him back in, you know, going through his PCP, getting a referral and going back into the program. And I hopefully changed his outlook, attitude about MOVE. Whether they can help him or can't help him or, whatever, or hurt him (laughs), that's another issue, but at least I'd got him back in that, and I feel pretty good about that (Peer Coach 107).

In another case, a peer coach encouraged his veteran to seek help from the patient advocacy office when he was having problems with his doctor. The peer coach shared that his veteran told his doctor, "'The pain med I am on is not working. You need to change it. I think this might work.' And his doctor would not listen to him. [So I said] go to the patient advocate and get a second opinion" (Peer Coach101).

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One veteran described how his peer coach helped him to navigate the disability application process: "He gave me a lot of advice—how to get my old medical records and, uh, dental records and history stuck back in the military so that I could put in for some disability. So he's really helped me a lot on that" (Veteran 219).

Discussing Exercises and Activity

Participants described spending time in their meetings talking about self-management exercises and activity modification. For one veteran, it was important that he learned to slow the pace of some of his activities in order not to exacerbate his pain:

> I've learned to break it up to where I don't end up in so much pain. You know. Cutting the grass, if I did all in one day like I used to, in a couple hours, I'd be in so much pain for the rest of the day I was no good for nothin'. If I break it up in two days or three days, I'm better off. (Veteran 207)

Others found that beginning to engage in exercise was beneficial. One participant shared that he has gotten into the habit of exercising in the morning: "It gets my body going. It's like a warm-up. It gets me going and then I can do things around the house, or walk or something" (Veteran 214). For another veteran, the stretching he learned was especially valuable: "The tips on stretching helped…tremendously" (Veteran 215).

One veteran described his initial skepticism regarding exercise, saying, "I thought the exercising would just make things worse. And [my peer coach] has kind of convinced me that, you know, it will help some, and it has helped some." He went on to describe specifically how exercising has helped him:

> It feels good when I'm doing it…It's [the study] benefitted me a lot. I've kinda learned how to deal with the pain. I probably take a few less pain pills now than I did, a few. So, um, it has helped me. I do a lot of walking every week. I do some, uh, ballet stuff with my two daughters. I have slept a little better at night, and I think it's because of that. Because my muscles are more relaxed and the exercising, uh, I've talked to my peer about how I think really, it has helped me, a lot" (Veteran 219).

Sometimes peer coaches shared their own experiences with pain self-management, in an effort to encourage their veterans to engage in self-management activities (modeling), such as the following coach: "I tried to explain to [one of my veterans] that I walk. I've got a retired buddy that I walk with four times a week, and we've tried to go further…Or when I watch TV, I do little weights and things like that…So I tried to tell him that you'll surprise yourself on how much you can feel, by doing stuff like that (Peer Coach 105).

Another peer coach described going beyond simply discussing his own pain self-management; he agreed to engage in the same self-management routine as his assigned veterans: "I told them up front, Look I'm gonna do these with you, so if you agree to do them over the next two weeks, I will do them for the next two weeks and I'll even document the days that I do 'em" (Peer Coach 106).

Sharing Ideas About Pain Self Management Strategies

Participants often discussed sharing ideas related to pain self-management strategies in their meetings. One peer coach shared that his favorite part about working with his veterans was "giving them ideas that they could use, and in fact it wasn't just abstract. It was actually something they could do…[and] they both followed through" (Peer Coach 104).

Similarly, the veteran participants also appreciated the opportunity to share and to learn from their peer coaches. For the following veteran, it was important that he had someone to talk to, as well as "getting some ideas, maybe a little feedback on what might be a little bit easier, getting [my peer coach's] input and his experiences. He had enough experience to maybe show me some things I might not have thought about" (Veteran 208).

Veteran 215 had a similar perspective, noting that the most important part of IMPPRESS for him was "figuring out ways to cope with my pain or learning tricks to ease the pain, [my peer coach] just sharing information that he found out with me, you know all the tips and tricks were very beneficial. Because I'm in pain, I don't think it's going to hurt to try something new (chuckles)."

Challenging and Motivating

An important component of pain self-management is being motivated to continue with exercises and other self-management strategies. Peer coaches were able to provide motivation, and in some cases, even challenge patients to push themselves a little bit farther, as the following veteran described:

> My exercise and stuff like that, we talked more about that than anything. He felt that it would probably help me a whole lot by trying to do something a little bit more than what I'm already doing, and to keep doing a little bit more. He said it seemed like that helped him a lot: The more he could do, it cut down on his pain (Veteran 205).

Sometimes this challenging and motivating occurred in the context of goal-setting, which peer coaches were encouraged to practice with their veterans. One peer coach explained that,

> I started like, just, let's set a little goal. Um, it sounds kind of silly, but like I told him, I said well walk out your front door and walk 10 steps out

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and walk 10 steps back. Okay, I said, when you get in the house, don't sit down, walk around the house little bit. So that was a goal, not to sit, and first thing I know, he was off and running. He's everywhere (Peer Coach 111).

Discussion

The IMPPRESS pilot study demonstrated beneficial effects of peer-supported pain self-management on key pain and psychosocial outcomes for veterans with chronic pain [19]. The current qualitative analysis provides insights into what participants valued about the intervention, providing preliminary evidence for why participants might have experienced these improvements.

In describing their experiences with the IMPPRESS intervention, participants placed high value on making interpersonal connections, giving and receiving encouragement and support, and facilitating the use of pain self-management strategies. These salient features of IMPPRESS closely parallel two of the three defining attributes of peer support as defined in Dennis' concept analysis of peer support [10]: emotional support and informational support. Emotional support, which includes expressions of caring, attentive listening, and avoidance of criticism or admonishment when giving advice, is manifested as giving and receiving encouragement in IMPPRESS. In particular, participants valued being listened to. In addition, the support participants received from the intervention and from their peer coaches led to a greater ability to cope with chronic pain; participants described having a more positive attitude and feeling in greater control of their pain (rather than being controlled by their pain). Given that chronic pain is unlikely to be completely alleviated, the ability to effectively cope is critical for those with chronic pain [24].

Informational support, as described by Dennis, is the provision of knowledge relevant to problem solving. IMPPRESS participants described knowledge sharing specifically in the context of pain self-management: navigating health care resources, discussing self-management exercises and activities, sharing ideas. An important component of participants' descriptions not necessarily captured by Dennis' model of peer support is the concept of challenging and motivating to achieve self-management goals. IMPPRESS participants described setting goals and being challenged to do just a little bit more than they had previously. In this way, peer coaches truly functioned in the role of a "coach," providing veterans with specific and sometimes challenging goals to work toward.

Dennis also described a third element of peer support: appraisal support, defined as "communication of information that is pertinent to self-evaluation and encompasses expressions that affirm the appropriateness of emotions, cognitions, and behaviors." Examples include encouragement to persist in problem resolution, and assistance to endure frustration. Although IMPPRESS participants did not specifically recount instances of appraisal support, it is possible that through supportive activities such as listening, participants received this type of support. However, participants did not spontaneously discuss giving or receiving appraisal support in IMPPRESS.

Veterans placed a strong emphasis on the interpersonal, social aspect of the intervention. Connecting with a fellow veteran was a salient feature of IMPPRESS, both for peer coaches and patients. While peer support interventions can decrease feelings of social isolation [9,10], the majority of IMPPRESS participants who described connecting with another person identified this as *the most important part* of the study for them. Some participants recognized and appreciated that social contact provides an important distraction from their pain, while others described simply appreciating the opportunity to engage with another person. For some, these social connections were enjoyable; for others, these connections served to alleviate loneliness. While IMPPRESS was designed to facilitate and support patients' self-management, it is noteworthy that for participants, pain self-management was not necessarily the most salient part of the intervention. Embuldeniya and colleagues' [9] qualitative synthesis of peer support interventions lends support to this idea, noting that reducing feelings of social isolation is an important part of successful peer interventions. Consistent with this observation, IMPPRESS participants showed notable improvement on a number of outcomes. It is a reasonable hypothesis that social connectedness may mediate or moderate improvements in pain, pain cognitions, and other psychosocial variables, possibly by facilitating coping. More research is needed to better determine the mechanisms through which peer support for chronic pain may work.

The sense of connection experienced by IMPPRESS participants has emerged in prior pain self-management work, in which nurse care managers delivered pain self-management information and support to patients with chronic pain [25–27]. In those studies, participants strongly valued the support, motivation, and accountability provided by the nurse care manager, in some cases more so than the self-management activities themselves. Patients with pain looked forward to phone calls from the study nurse, and valued having someone who would listen to them, offer suggestions and feedback on progress, and encourage them to "stick with it." In IMPPRESS, peer coaches were able to fill a similar role, with possible advantages over nurses, as the peer coaches were fellow veterans, and chronic pain sufferers themselves. Indeed, IMPPRESS participants valued being paired with a fellow veteran, and viewed this shared identity as an important facilitator to peer-supported pain self-management [28]. As prior work has demonstrated, peers, who by definition share many of the same struggles, are in a unique position to help others [9,28,29]. Pragmatically, peers have the potential to be more accessible and cost-effective than professionally trained members of health care teams, resulting in greater implementation potential, and, ultimately, the ability to reach and benefit a greater number of patients [30].

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Notably, the three essential elements of IMPPRESS as identified by participants are not mutually exclusive, but rather overlap and are interconnected within participants' experiences, as Figure 1 illustrates. Provision of encouragement and support, for example, can occur in the context of facilitating self-management strategies, as when peer coaches described challenging their assigned patients to continue to improve by setting incrementally larger goals. And clearly support from others is closely related to the fostering of interpersonal connections and relationships, since these relationships can be an inherent source of support for patients managing pain. For some patients, encouragement and support is likely to be experienced to a greater degree as an interpersonal or social aspect of the intervention, particularly for patients who are lonely or depressed. For others, with less need for emotional support, encouragement and support may be experienced to a greater degree in the context of self-management facilitation. Indeed, this is a strength of peer support: the individualized, tailored nature afforded to participants, which patients with chronic pain have previously identified as important for effective pain self-management [25,27].

Importantly, some of the benefits described by patients appeared to extend to the peer coaches, as well. Some peer coaches spoke of benefitting from the interpersonal connections they made during the intervention, improving their ability to deal with their own pain, and experiencing satisfaction from being able to help another person. Benefits to peers have been noted previously [31] and suggest that the potential reach of a peer support program for chronic pain extends beyond the patients receiving coaching, making clinical implementation of such programs even more important to explore [30].

This study has some limitations. First, this was a small pilot study conducted at a single VA medical center, with all male participants. Female veterans may experience social and peer support differently than males [32]. Moreover, because veterans share a unique sense of identity stemming from their military service, peer support might be more acceptable and beneficial to veterans versus non-veterans [28]. As a result, findings might not be applicable to other populations or settings. We know little about which patients with pain might benefit most from peer support; this is an important avenue for future research. Second, interviews were conducted retrospectively; participants' hindsight perspectives may differ from their experience in real time. Finally, we were unable to interview the four participants (one peer coach, three veteran patients) who were lost to follow-up; it is possible that these participants had alternative perspectives on the intervention that could provide additional insights into experiences with the intervention.

Despite these limitations, this is the first study we are aware of that seeks to identify the elements of a peer-supported pain self-management intervention that are perceived by participants as essential to achieving positive changes. Understanding these "active ingredients" is important for the design and testing of future interventions of peer support for patients with chronic pain, and critical for ultimate clinical implementation.

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