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"Veteran to Veteran, There's Automatically a Trust": A Qualitative Study of Veterans' Experiences in a Peer Health-Coaching Program for Hypertension

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Introduction: Veteran peer Coaches Optimizing and Advancing Cardiac Health was an randomized controlled trial (RCT) to test the effectiveness of a peer support intervention to reduce blood pressure among veterans with hypertension and 1 or more cardiovascular risks. The authors studied participant perceptions of the intervention, including barriers and facilitators to participation, factors promoting behavior change, and disease self-management practices.

Methods: The authors enrolled participants at their exit visit for the Veteran peer Coaches Optimizing and Advancing Cardiac Health study. Participants received primary care at the Veterans Administration healthcare system and had multiple cardiovascular disease risks, including a diagnosis of hypertension. The authors conducted a qualitative content analysis of semistructured interviews about their experience with the Veteran peer Coaches Optimizing and Advancing Cardiac Health intervention.

Results: Interview participants (N=29) were aged 60 years on average (SD=8.6), were 71% male, and were 55% White. They had mean systolic blood pressure of 138 mmHg (SD=18) at baseline. Authors identified themes across 3 major categories, which follow the general progression of the intervention: participation, relationship building, and behavior change. Scheduling flexibility, shared identity and experiences with the coach, acquisition of new knowledge and skills, and goal setting were important determinants of participants' experiences in the program. In the participation category, the themes were scheduling, visit modality, life circumstances, and staffing. In the relationship category, the themes were the coach's professional role, shared identity and experiences, and social support. In the behavior change category, the themes were memory, attention, and decision processes; goal setting; skills and knowledge; and environmental context and resources. Authors report differences across patients varying by blood pressure reduction after the intervention and number of coaching visits.

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2773-0654/$36.00
https://doi.org/10.1016/j.focus.2024.100257

Conclusions: Participants generally reported positive experiences in a peer support intervention for veterans with hypertension. Participant perceptions provide important insights into the intervention design and implementation. These findings may inform future implementation of peer support among veterans in hypertension and chronic disease self-management more generally.

Trial registration: This study was registered at Clinicaltrial.gov with the identifier NCT02697422

INTRODUCTION

Participants in peer support programs receive health education and self-management assistance from a member of a social group who has similar characteristics and experiences. Peer support programs to address chronic health conditions have been associated with improved health outcomes, including improved diabetes control and cardiovascular disease risk reduction.[1,2] These programs have also been tested among veterans who utilize Veterans Administration (VA) health care for a variety of chronic conditions and mental health services.[3−8] Qualitative assessments of these programs have included provider, program staff, and administrator perspectives.[9−12] However, few studies have assessed veteran participant experiences and perspectives of peer support programs, which is essential to informing future implementation.[13−15]

The researchers sought to understand veteran participant perspectives after participation in a peer support program within the VA. The original study, Veteran peer Coaches Optimizing and Advancing Cardiac Health (VetCOACH), was an randomized controlled trial (RCT) of a peer support intervention to reduce blood pressure among veterans with hypertension and 1 or more additional cardiovascular risks.[16] Veteran participants and coaches were recruited from Census tracts with the highest prevalence of hypertension. Trained veteran coaches provided education and support through home and phone visits to facilitate health behavior change. Although the results[16] showed no difference between the intervention and control groups in the primary outcome of systolic blood pressure reduction, the intervention participants experienced a significant improvement in mental health-related quality of life compared with the control group. Using a novel, neighborhood-based recruitment strategy, the study was able to enroll a substantially higher percentage of Black veterans—disproportionately affected by cardiovascular disease but underrepresented in research—than the national VA patient population.[16] These results suggest that a peer support model integrated into primary care can improve well-being and potentially enhance efforts to address health disparities.

This study's primary objective was to identify participants' perceptions of the intervention, including barriers and facilitators to realizing the principal program goal, improved disease self-management. Secondary objectives were to explore whether barriers and facilitators differed between participants who (1) did and did not experience improved systolic blood pressure at the end of the trial (the primary outcome) and (2) received a lower and received a higher number of coaching visits. These results can deepen our understanding of the opportunities and challenges associated with peer support programs for chronic disease management and help to inform program implementation in the VA.

METHODS

Authors conducted semistructured interviews with participants enrolled in the intervention arm of the VetCOACH trial. The trial methods, details of recruitment, and intervention description are described in prior publications.[16,17] In brief, participants eligible for the VetCOACH trial received primary care at the VA Puget Sound, were diagnosed with hypertension with at least 1 blood pressure measurement >150/90 mmHg in their medical record over the past 12 months, and had 1 other risk factor for cardiovascular disease (current smoking, overweight or obesity, and/or diagnosis of hyperlipidemia). Participants were enrolled in the intervention from May 2017 to October 2021, receiving 10 monthly visits (alternating home and phone) by trained veteran health coaches over a 12-month period. Coaches provided health education and support, linkages with primary care, and connections with VA and community resources. Participants also received supplies to assist with disease and risk factor self-management (e.g., automated blood pressure monitor, scale, pill organizer, and portion size placemat). The protocol was modified to telephone-only visits after the start of the coronavirus disease 2019 (COVID-19) pandemic in March 2020.

Authors conducted a qualitative study using semi-structured interviews to assess the primary objective of describing participants' perceptions of the intervention. For the secondary objective of exploring differences in participants' perceptions by blood pressure outcome and intervention fidelity, the authors used a mixed methods sequential design in which qualitative findings were stratified and compared in the final stage of analysis.[18]

This study was approved by the VA Puget Sound IRB. The authors followed the Consolidated Criteria for Reporting Qualitative Studies guidelines (Appendix A, available online).[19]

Study Population

VetCOACH intervention recipients were asked to participate in a 30−45-minute qualitative interview with study staff within 3 weeks of completing the 12-month assessment at the end of the intervention. The interview was voluntary, with no additional monetary incentive provided.

Measures

The authors conducted qualitative, semistructured interviews with participants by phone. Interviewers and primary analysts were a doctoral student (CBK) and a physician researcher (MR) under the supervision of a qualitative methodology expert (GS). Interviews were audio recorded and professionally transcribed. The authors interviewed participants until the study team determined that sufficient thematic saturation was achieved.[20]

The interview guides included questions on overall perceptions of the intervention components, interactions with coaches, and suggestions for future implementation (Appendix B, available online). The interview guides were revised iteratively through discussion of initial responses. The interview guides and analysis were informed by the study's conceptual model[17] and 2 implementation science frameworks: the Theoretical Domains Framework (TDF)[21] and the Consolidated Framework for Implementation Research (CFIR).[22,23] Both the TDF and CFIR describe implementation determinants. The TDF includes 14 domains focused on provider-led behavioral interventions and theories of behavior change.[21] The authors used the TDF to help generate results relevant to known mechanisms of behavior change. The CFIR guided inclusion of questions relevant across all levels of implementation. The CFIR presents determinants of implementation across levels where the intervention occurs: characteristics of the individuals (e.g., peer health coaches), inner setting (primary care clinic team), and outer setting (VA clinic administration).[22]

For secondary, exploratory analyses, authors used measurements from the parent RCT data to identify participants who did and did not experience a systolic blood pressure reduction ≥5 mmHg (prespecified threshold for intervention success). The authors measured intervention fidelity by the number of coaching visits completed (maximum of 10), captured by coach-reported visit logs. The authors defined high fidelity as ≥9 visits. Of note, the trial found no effect of fidelity on blood pressure outcomes.[16]

When stratifying the data by blood pressure and fidelity, the researchers sought to create 2 meaningfully distinct comparison groups and excluded participants whose values were at or close to the prespecified thresholds described earlier. However, all participants' data were included in the primary analysis.

Analysis

Authors analyzed transcripts using simultaneous deductive and inductive content analysis.[24,25] Using deductive content analysis, authors identified meaningful quotes within a priori codes, specified by the study conceptual model: TDF and CFIR frameworks. Using inductive content analysis, authors also identified emergent codes. The authors identified themes across codes and grouped them under overarching topic categories.

The authors reviewed all transcripts for quality assurance before uploading them into ATLAS.ti, version 9,[26] for analysis. Two researchers (CBK and MR) coded 7 interviews in duplicate to reach an initial codebook through consensus. The remaining interviews were each coded by 1 researcher (CBK), with iterative discussions among coauthors throughout to explore alternative explanations, practice reflexivity, and refine findings. Additional authors were involved in iterative summary, analysis, and interpretation (KMN, GS, JLW, LS, TF, KEG, and BJW). In secondary analyses, the authors stratified the sample by change in systolic blood pressure and intervention fidelity. Themes identified in the total sample were reconsidered by these subgroups to explore potential differences, using Atlas.ti tools and joint display techniques.[27,28]

RESULTS

The authors interviewed study participants (N=29) from November 2018 to August 2021. Interview participants had a mean age of 60 years (SD=8.6); 71% were males, and 55% were non-Hispanic White. The participants' mean baseline systolic blood pressure was 138 mmHg (SD=18), and mean diastolic was 80 mmHg (SD=11) (Table 1).

Table 1. Baseline Characteristics of Study Sample

Characteristics	Interview participants (N=29)
Baseline demographic characteristics	
Male, *n* (%)	21 (72)
Age (years), mean (SD)	59.6 (8.6)
Less than high school education, *n* (%)	1 (3.5)
Married, *n* (%)	10 (35)
Employed, *n* (%)	15 (52)
Retired, *n* (%)	9 (31)
Unable to work	2 (7)
Annual household income, *n* (%)	
≤$20,000	6 (21)
>$20,000 to $40,000	7 (24)
>$40,000	15 (52)
Hispanic, *n* %	4 (14)
Race, *n* %	
White	16 (55)
Black	8 (28)
American Indian/Alaska Native	0 (0)
Asian	0 (0)
Multiracial	4 (14)
Other	0 (0)
Baseline clinical characteristics	
Systolic BP, mean (SD)	137.8 (17.6)
Diastolic BP, mean (SD)	80.2 (10.6)
Overweight: BMI≥25, *n* (%)	28 (97)
Obese: BMI≥30, *n* (%)	16 (55)
Current smoker, *n* (%)	4 (14)
Low-density lipoprotein cholesterol, mean (SD), mg/dL	110.8 (40.2)
Outcomes of RCT	
Systolic BP, mean difference between 12 months and baseline (95% CI)	−5.86 (−14.12, 2.39)
Diastolic BP, mean difference between 12 months and baseline (95% CI)	−0.66 (−5.50, 4.19)
Response to intervention	
Responders: systolic BP reduction ≥5 mmHg at 12 months, *n* (%)	16 (55)
Nonresponders: systolic BP reduction <5 mmHg at 12 months, *n* (%)	13 (45)
Intervention fidelity (maximum of 10 coaching encounters)	
High: completed ≥9 coaching visits, *n* (%)	17 (59)
Low: completed ≤6 coaching visits, *n* (%)	6 (21)

BP, blood pressure; BMI, body mass index; CI, confidence interval; RCT, radomized controlled trial; SD, standard deviation.

In general, participants reported positive experiences with the VetCOACH intervention, all responding affirmatively when asked whether they would recommend the program to a friend. The authors identified 10 themes organized under 3 broad categories. These categories follow the natural progression of the intervention. The first is participation, including the participants' experiences with the administrative requirements of the program. The second is the relationship with their coach. The third is behavior change, including participants' efforts to improve disease and risk factor self-management.

Participation

Veterans reported their experiences with the administrative requirements of participating in the VetCOACH program. The authors describe 4 themes in the participation category: (1) scheduling, (2) visit modality, (3) life circumstances, and (4) staffing (Table 2). Most veterans found that ease of scheduling and home visits facilitated their participation. In contrast, a few veterans found that scheduling issues, home visits, life circumstances, and program staffing were barriers to participation. Aspects of this category align with the CFIR innovation adaptability construct, particularly the flexibility in

Table 2. Participants' Experiences and Perceptions of Participation in the VetCOACH Intervention

Theme	Illustrative quotations
Scheduling: Timing, frequency, and flexibility of visits influenced ease of participation	Facilitator (most) • **"We met wherever and whenever we could do it.** Sometimes we met at Starbucks, sometimes the library. Sometimes at the mall. My wife is suffering from cancer, he can't come to my house. . .It worked out well, which I enjoyed about the program." (Participant #19) Barrier (few) • "I wouldn't hear from my guy for a while, and then all of a sudden, he would call me, and I hadn't heard from him in 3 weeks, or maybe 4 weeks. He would call and say, 'hey **we have to schedule another appointment** and it should happen between this amount of time,' and I'm like, "ok, **let me cram this in somehow.**" (Participant #6)
Intervention modality: Participants had both home and phone visits and may have preferences	Facilitator (many) • "The home visits were very valuable, because it allowed to have a personal connection with the Vet Coach. And it **allowed them to see the participants in their house and surroundings to give them a greater insight** as to factors that may be related to their situation as far as losing weight. Also, **in your home environment you're more comfortable** and able to be more open." (Participant #5) Barrier (few) • "I guess the phone interview could be much easier for him, because I could be anywhere and have the interviews. Except for the fact that I had to use the blood pressure cuff. As opposed to when he did it in my home, **it was kind of a hassle** because I live in an apartment and I have to go down and let him in, and bring him up to my floor. . .so that meant we had to regulate our time and to synchronize our time. So that made it a little bit inconvenient. I think **with every little inconvenience you have, or whatever stress that you have, it will**. . .**especially with me, on my blood pressure exam.**" (Participant #26)
Staffing: VetCOACH team faced high caseloads and turnover	Barrier (few) • "Well, he had mentioned to me that he can't take on a bigger caseload, you guys are having personnel problems or something, he had kind of alluded to that, that he had more people that he had to see. **So we kind of had to stretch out my visits, my appointments because I guess he had more participants that he had to work with**." (Participant #29) • "Yeah, So I think they should make sure whoever they choose to be a **coach is going to be able to go through the whole program.** I think that's an important thing. Because of level of trust is established between the coach and the person. Well at least me, I can't speak for everybody. But **I wasn't as open with the second person** as I was with [VetCOACH's name]." (Participant #26)
Life circumstances: Participants had multiple comorbidities and full lives	Barrier (few) • "I said I didn't like talking on the telephone. . ..I don't like a lot of contact, and then, you know, I never knew what I was going to be doing. And because my memory is shot, I've been painting this apartment, and I forget that he's going to call or something, and it was just something that I had to put on the calendar, and **remember to look at the freakin' calendar**, and be there for him to come. It's just, that was annoying, **I don't like to stress out on appointments and stuff**." (Participant #18) • "I: What, if anything, made it difficult to participate in the program? R: It had nothing to do with the coach, just, I'm **married and dealing with certain thing, job issues and stuff like that."** (Participant #8)

VetCOACH, Veteran peer Coaches Optimizing and Advancing Cardiac Health.
Bold text is added to emphasize key words or phrases related to the category or theme.

intervention delivery. Furthermore, the findings align with the CFIR inner setting construct of structural characteristics, such as the ability of the intervention to provide functional performance to the clinical workflow offering home visits (physical infrastructure) or handoffs to peers (work infrastructure). The TDF determinants did not prevail in this category.

Scheduling, including the timing, frequency, and flexibility of visits, influenced ease of participation. Participants appreciated flexibility, which included (1) meeting locations (home, nearby coffee shop, or mall); (2) time of day and accommodating other commitments; and (3) switching to phone meetings, which became the standard at the onset of the COVID-19 pandemic (Table 2).

Some participants described barriers to full participation. A few had difficulties in scheduling visits owing to medical appointments, work, and family demands. A few others described coaches requesting to reschedule or delays in returning calls attributed to coaches' inflexibility or busy lives.

Participants were asked about their experiences with home and phone visits. For many, home visits were a facilitator to participation and were explicitly preferred to phone visits. Some found home visits convenient.

One said, "I wouldn't have had the time for this program if [they didn't come to my home]." A few noted the benefit of home visits to address social isolation (details are provided in social support theme). Several expressed gratitude that the coach "took the time" and would "come out [to my home]." One participant found hosting the coach at home stressful because he would have to prepare and escort the guest. A female participant experienced fear and discomfort with hosting a male coach owing to past trauma and abuse (details are provided in staffing theme) (Table 2).

Some participants met in person with the coach outside of the home, which was seen as a facilitator (details are provided in the scheduling theme). The reasons varied from having an immunocompromised family member, needing proximity to a busy work life, to geographic distance between coach and participant.

At least 1 participant preferred phone visits, noting this mode of visit as the "easiest." Later participants noted that phone visits were "equally" as effective or easy because it had become required during the COVID-19 pandemic. Two participants said that phone meetings were stressful. One believed that it increased their blood pressure, which they had to measure themselves during the calls. The other participant found it stressful to remember the call schedule.

A few expressed how life circumstances made the addition of program activities a stressor, including (1) stress and anxiety associated with keeping track of visits; (2) marriage, job, and work; and (3) disabilities that limited the program-recommended activities relevant to them (Table 2).

Program staffing impacted a few participants, who remarked on their coach's scheduling conflicts from high caseloads. One reported assignment to 2 coaches as a barrier (a result of coach turnover) and having difficulty in building the same rapport with a second person. One female participant indicated the lack of a female coach as a barrier (Table 2).

Relationship With Their Coach

Most veterans participants had positive relationships with their coaches across 3 themes: (1) the coach's professional role, (2) shared identity and experiences, and

Table 3. Participants' Experiences and Perceptions of Their Relationship With Their Health Coach

Theme	Illustrative quotations
Coach's professional role: Coach as a peer with health training, filling a role distinct from a friend or clinician	Facilitator (most) • "So being able to talk to somebody about my medical things, who is **not a family member or a friend**, or someone who was going to necessarily break down emotionally when I talk to them about it. . .having someone who I could talk clinically about what I'm going through, **not a doctor**, who's not trying to assess me for what I'm dealing with, that is very helpful." (Participant #24) Barrier (one) • ". . .I **don't think he's qualified** enough for me to discuss my blood pressure. I would rather my doctor deal with that." (Participant #18)
Shared characteristics: Recognition and salience of characteristics in common with coach	Facilitator (most) • "Well, that's a good part, because he's been through the same problems I've been through. **He's a veteran, I'm a veteran, so we understand each other**. . .Veterans assisting veterans, you know, we're always in the same tune of the music, in a way of speaking." (Participant #1) Barrier (few) • ". . .he had a lot of personal issues going on where he had trouble following through on a lot of things. . .. **if he could get his personal life squared away, then he'd be an awesome Vet Coach**. . .he just had a full plate. And me having a full plate too, my medical issues probably didn't make it any easier either." (Participant #3) • "I've got to tell you, the first guy that was assigned to me, he lost his temper with me, you know? And they had to change up. **I am afraid of men**, basically, because I've been beaten up by men, you know, my father and my husband." (Participant #18)
Social support: Coach provided emotional assistance to improve health	Facilitator (most) • "I think it's a great program because **your coach is empathetic, but also a driving force. And they also provide information and feedback. I think a lot of people don't have that.** Me and my girlfriend always talk about how we're going to go on this diet together and how we're going to be supportive, and then that never happens because we're all too busy. But having a Vet Coach, I found it very supportive. . ." (Participant #5) Unintended consequence (one) • "I do **feel a sense of loss now**, because I no longer have that person, it's only for a short time. So I feel this bond and relationship with someone that I opened up to and let in my personal space, and now that person is no longer a part of my world, or my life, and everything, basically. So **it's like losing a friend.** Especially when you're dealing with issues like trust. . ." (Participant #15)

Bold text is added to emphasize key words or phrases related to the category or theme.

(3) social support (Table 3). The coach's professional role and shared identity and experiences were perceived to be facilitators to relationship development by most but a barrier by few, as detailed below. Most participants appreciated the social support provided by coaches. These 3 relationship themes overlapped with 2 TDF domains: social/professional role and identity and social influences. This category also aligns with the CFIR referring to the inner setting culture, including human equality—centeredness, deliverer-centeredness, and recipient-centeredness subconstructs.

Participants viewed their coach as a peer with health training, filling a role distinct from family, friend, or clinician. For most, this professional distinction was a facilitator. Coaches were seen as adaptable to scheduling constraints and responsive when contacted between visits, behaviors which promoted relationship development. Several participants emphasized that their coach "was well trained [and] qualified." They were grateful for the opportunity to talk to someone "outside of your friends and family" and who "wasn't my doctor." A couple of participants appreciated the coach doing more than addressing hypertension—"going beyond themselves."

For 1 participant, the coach's professional role was a barrier; she felt that the coach was unqualified and preferred discussing her medical issues with a doctor (Table 3).

Most participants reported that having characteristics and experiences in common with their coach facilitated relationship building (Table 3). Shared veteran status was most frequently mentioned as a facilitator of trust in their coach. Some veterans mentioned that a civilian would not have known VA resources, and "90% [of veterans] would rather talk to and relate to veterans." In some cases, the intersection of identities was emphasized as being additionally helpful, such as a veteran coach who experienced post-traumatic stress disorder. Other shared characteristics mentioned by participants include race, culture, age, marital status, abilities, and medical concerns. When asked directly whether their coach shared details about their own hypertension experience, many participants said no or provided no details.

For 1 participant, shared health conditions were a barrier. He expressed difficulty in building their relationship, reporting that the coach's personal health problems impeded his reliability, resulting in lack of follow-up and missed appointments.

The coaches provided social support, which was seen as a facilitator to a strong and meaningful relationship. Most appreciated having someone to talk to. Some participants expressed "being alone," not leaving the house, and having no family nearby. They placed value in this "source of social interaction" and "someone you can call if you need to." One veteran said that the relationship allowed him to acknowledge his depression and seek treatment. Another said, "it felt like someone is looking out for you. . .Veterans often feel abandoned" (Table 3).

A few participants noted a mutual exchange: "I think I might've helped him out with that one as much as he helped me out." Another participant noted an unintended consequence of increased social support during the program, reporting "a sense of loss" when the intervention ended.

Behavior Change

In terms of behavior change, participants responded to questions about their health education, goal setting, and general program activities. Their responses raised examples of the precursors, motivations, actions, and follow-up that lead to behavior change. These were largely deductively captured by the domains and constructs of the TDF, highlighted in Table 4: (1) memory, attention, decision processes, (2) goal setting, (3) skills and knowledge, and (4) environmental context and resources (Table 4). This category algins with the CFIR innovation construct of partnerships and connections, which can enable the intervention to provide resources and connections for participants to reach their goals.

The TDF defines this domain as the ability to retain information, focus selectively on aspects of the environment, and choose between 2 or more alternatives.[21] Several participants mentioned how the health education and prevention practices shared by the coach were "not really new," "things I might've forgotten in the past," or "basics that had gotten away from me." They found revisiting these education topics helpful, referencing a "refocus" of attention. Many of these participants mentioned examples of daily choices in diet, exercise, and medication adherence. For example, they described remembering their coach's advice when making decisions on portion sizes and choosing the healthier food (Table 4).

Many participants saw goal setting as a facilitator to behavior change. A quarter of all participants reported that "accountability" to the coach was a motivator to adopt healthy behaviors. Most participants described their coach using other reinforcement practices, such as refresher, reminder, encouragement, and persistence. Some participants said that their coach helped them to set goals that respected their physical ability limitations, with "tailored" strategies and "thinking outside the box." Veterans' experiences with goal setting in the Vet-COACH program reflected multiple TDF domains, including goals, reinforcement, beliefs about capabilities, beliefs about consequences, and skills (Table 4).

Table 4. Participants' Experiences and Perceptions of Health Behavior Change in the VetCOACH Program

Theme	Illustrative quotations
Memory, attention, decision processes (TDF): Refreshing, reprioritizing, and refocusing on previously gained knowledge and skills	Facilitator (most) • "a lot of the issues that we were talking about I'd been dealing with for a very long time. So it's not like he came with knowledge I didn't already have. . .but he was able to bring a different perspective and allowed me to be able to talk it out, what I already knew, and that helped me, because **it was almost like a sounding board, to be able to talk about what I knew, and it changed my perspective on things**." (Participant #24) • "just talking to the coach refreshed the fact that I really do want to lose weight, I really do want to exercise more. And I really do want to eat better. And **having that refresher on a regular, reoccurring basis, helped keep me aware of what I wanted to do**. . ..talking to the coach on a regular basis would refresh my interest in doing it, and then I would do it. (Participant #21)
Goal setting: Setting and working toward goals	Facilitator (most)
Accountability	• ". . .we set goals. And **my Vet Coach was very good about following up** and saying, 'how's it going?', 'how are you doing?', 'how's this working for you?'. . .**That's beneficial for me because having that accountability piece is the part that I'm usually lacking.**" (Participant #2)
Tailored strategies	• "**He asked me what limitations I had**, because I have a heart problem, and I can't do any heavy physical exertion at all, **so that's why he was suggesting to walk more instead of other activities.**" (Participant #30)
Motivation	• "**It's more personal when you're trying to get your health together when you have somebody that's professional about it**, to talk to about your nutrition, especially another vet. So, it helped out tremendously. **It gives you more motivation.**" (Participant #30)
Skills and knowledge (TDF): Learning new skills and knowledge to benefit health	Facilitator (most) • "**Knowledge is power**, and the more knowledge I have on how to take care of myself is keeping me independent longer. So participating in a program like this and having another individual that can relate to even some of the medical issues that I would deal with is a benefit. . .And **knowing that whatever you can learn about things you can do to try to make your health better for you, makes me anyway, want to stay in the program**..." (Participant #3) • "**I wasn't very consistent with taking my medicine, so he suggested that I set up a system** where each day when I took it, I could cross it off. So I set up a calendar, so **now I don't miss the day**, and the last couple of times I had gone to the doctor, **my blood pressure has been good**." (Participant #26)
Environment context and resources (TDF): Life circumstances, environmental factors, and resources shape experience	Facilitator (some): • "Before you guys came on board, my blood pressure cuff, things of that nature, I had to procure myself. . .**You're the first program that actually went out and gave you all of the resources to make you better**. . .here it is, it's here for you, use it. How can we help you use it. . .I think it's a better program." (Participant #19) Barrier (some): • "**We would set goals** and, like I said, I'd end up working 12 hours a day, and just be exhausted. . .I mean **when you don't have that much energy because you're so exhausted, you really have to choose what the highest priority is**, and. . . **even though you say I want to walk up and down my hallway x number of times before work, when you get home you're too exhausted to do anything except sit there and go to bed."** (Participant #5)

TDF, Theoretical Domains Framework; VetCOACH, Veteran peer Coaches Optimizing and Advancing Cardiac Health.
Bold text is added to emphasize key words or phrases related to the category or theme.

Participants described learning new skills and knowledge as facilitators to behavior change. Some reported that knowledge alone was helpful, but most described specific actions, demonstrations, and modeling that helped them to build new skills (Table 4). Participants used a variety of approaches to learn about a healthy diet, including written education, pictures, discussion, and portion-control placemats. One participant noted that the visual tools helped balance their meals and "be more cognizant about what I put into my body." Participants reported that coaches would seek out additional information: ". . .whatever he didn't know, he would try and get back to me. . .." Participants also learned new skills to organize medications and exercise and add variety to their diet. One participant stated, "I didn't know how to cook that much. But the program changed me and now I alternate, I eat some vegetables."

Participants' life circumstances, environmental factors, and resources shaped their experiences and their ability to achieve health behavior change (Table 4). Some participants said that supplies provided by the program—pill organizers, graphic placemats of a balanced meal, portion-control measuring cups, and blood pressure cuffs—made behavior change possible. A few others noted that referrals to free pools and community centers supported their ability to reach their health goals.

Many described connections to veteran-specific benefits and resources, of which they were unaware prior to the intervention.

For others, their life circumstances presented barriers to behavior change. Similar to barriers in the participation category (life circumstances theme), participants had social/financial constraints and obligations that hindered their ability to achieve health behavior change. These included job stress, difficult home life or relationships, poor transportation, and financial strain.

Secondary Analyses

In secondary analyses, authors compared participants who experienced systolic blood pressure reduction ≥5 mmHg (n=16) with those who experienced <5 mmHg (n=12), excluding 1 participant with a reduction of 4 mmHg. The authors also compared high-fidelity participants (≥9 visits, n=17) with lower-fidelity participants (≤6 visits, n=6), excluding 6 participants who had 7−8 visits.

The authors found some differences in the balance of comments in the behavior change category by blood pressure outcome. The themes of knowledge, skills, and environmental context and resources (e.g., program-provided supplies) were raised more often (>75% of all coded comments) by those with significant blood pressure reduction. The authors found no other differences in the themes described previously by blood pressure outcome subgroups.

Participants with lower fidelity (fewer visits) experienced more barriers to participation, particularly in the theme of scheduling. More participants with high fidelity expressed appreciation for their coach's skill in balancing flexibility with the importance of scheduling or rescheduling visits. One participant described it as very kind but firm, and another noted the persistence. The authors found no other differences in the themes described previously by fidelity subgroups.

DISCUSSION

In a peer support intervention for veterans with hypertension, most participants reported positive experiences with the VetCOACH program. Authors identified themes across veterans' experiences in the intervention by 3 major topics: participation, relationship with their coach, and behavior change. In the participation category, most appreciated the ease of scheduling and home visits; a few perceived scheduling as rigid and home visits as stressful. Staffing issues (coaches' caseloads and turnover) and participants' life circumstances were barriers to participation for a few. In the relationship category, the coach's professional role, shared identity/experiences (especially veteran status), and social support were facilitators to developing a meaningful relationship with the coach. One veteran questioned the coach's professional qualifications, and another preferred a gender-concordant female coach. In addition, the loss of the coach relationship at the end of the study was difficult for 1 participant. In the behavior change category, authors found some facilitators to behavior change and adopting healthier habits, such as refreshing/reprioritizing knowledge/skills, new knowledge/skills, and goal setting. Participants' environmental context and resources were facilitators to behavior change for some but barriers for others.

A major strength of this study is the exploration of the veteran participant perspective on peer support. Other veteran-focused studies of similar programs show consistent and overlapping themes of social support, connection to social and health resources, motivation through peer accountability, and behavior change focused on disease self-management.[9−12] The present study is distinct in its focus on hypertension and cardiovascular risk as well as the inclusion of implementation science approaches.

The authors considered the participant perceptions in the context of the parent RCT. Knowledge, skills, and resources emerged as particularly salient among those who experienced a blood pressure reduction, but results did not otherwise vary by blood pressure outcome. In this RCT, mental health−related quality of life significantly improved among intervention participants compared with that among control group participants. Although identifying a mechanism for this result was not a prospective aim of the reported qualitative study, future studies might explore mixed methods connections between participant-reported social support and other mechanisms with the quantitative elements of the mental health−related quality of life measure (the 12-Item Short Form Survey).[29] Authors also performed analyses stratified by intervention fidelity, which was only relevant to participation themes, not to behavior change or relationship with their coach.

Importantly, "life circumstances" was cross-cutting across multiple themes, encompassing obligations and stressors related to time, health, resources, work, and social relationships. Some circumstances can be addressed through behavior change mechanisms specific to the participants' environmental context and resources.[21] For example, this intervention actively sought to address these circumstances proactively, such as providing bus tickets for study participation, health monitoring supplies, services at mutually convenient locations, and linkages to clinicians. Furthermore, the parent study used a novel neighborhood-based approach to recruit a

more racially and economically diverse sample. Future peer support programs may consider replicating and building on these practices to support participation among those with adverse social and economic circumstances. Where possible, the participants were paired with peers recruited from these same neighborhoods. Shared geography can promote community−clinical linkages that address life circumstances, such as nearby social services and programs outside the VA.[30]

Peers and other lay health workers are defined by their "trusting relationship," which helps to "facilitate access to services and improve the quality and cultural competence of service delivery."[30,31] The VetCOACH trial prioritized hiring peers on the basis of veteran identity and geography. These elements of concordance between peer-participant identity define "peerness." The degree to which shared life experiences are emphasized can distinguish the peer workforce as well as affect participants' experiences and outcomes.[32] Veteran status stood out in our participant interviews as defining peerness and facilitated the relationship between the participant and coach. The authors did not find that a coach's hypertension diagnosis was important or distinguishable by the participants. Other identities came up as barriers (lack of female coaches and ability status) and facilitators (race, age). Other studies also emphasize coach−participant concordance by identities and found women veterans requesting gender-conscious options.[15] Of note, authors embraced this priority from the program outset, attempting several times to hire female coaches but faced recruitment difficulties and turnover. In addition, authors screened women veterans to assess whether a male coach was acceptable.

This study applied 2 implementation frameworks, which had variable relevance to our results. The TDF is a meta-framework that creates a common lexicon across 33 theories of behavior change, enabling comparison of our findings with those of other behavior change studies. The authors found the TDF to be salient to the coach −participant relationship and behavior change themes. The latest version of CFIR (2.0)—released after completion of this study—cautions researchers that intervention recipients may have little relevant insight into CFIR implementation domains.[33] However, authors found several relevant CFIR constructs across the innovation (e.g., the VetCOACH intervention) and inner setting (e.g., clinical and intervention delivery setting) domains. In peer program, the intervention setting extends well beyond the clinic into the community and participants' home. Participants become the owners of the implementation setting and have a relevant voice in implementation. More inclusive approaches and practices are needed to capture participant perspectives on implementation determinants.[34−36]

Limitations

The authors acknowledge several limitations in this analysis. First, the data were limited to participant feedback, whereas coaches, study staff, primary care teams, and VA administrators could provide additional insight into implementation. Second, these findings may not generalize beyond the studied healthcare system, geography, and disease focus. Third, those who agreed to be interviewed may not represent the experiences of intervention participants more broadly. Fourth, the stratified analyses presented are exploratory because interview participants were not sampled by these characteristics. However, blood pressure responders/nonresponders and low-fidelity/high-fidelity participants were well represented in our sample. A key strength of this study is its examination of the participant perspective, which is essential for future adaptation and implementation of peer support programs.

CONCLUSIONS

In summary, most veterans found a peer support program for hypertension and cardiovascular disease risks to be acceptable, with key perceived barriers and facilitators identified across participation, relationship building, and health behavior change. Future peer support programs in this population may consider prioritizing ease of scheduling and coach−participant concordance in life experiences and identity. Furthermore, explicitly addressing participants' life circumstances (e.g., medical comorbidities, social and financial stressors) and resources (e.g., money, time, community-based services) may improve participants' success.

ACKNOWLEDGMENTS

The authors thank the primary care clinic at the VA Puget Sound for their collaboration in the project. The authors also thank Elizabeth Strewler, Marie Lutton, and Dr. Chris Vanderwarker for their contributions to the study. Finally, the authors thank Teotha Dennard, Derold Dye, Garcia Tavo Quevedo, Leon Spruill, and William Woodman for their dedication to coaching veterans.

The sponsor had no role in designing the study; collecting, analyzing, or interpreting the data; writing of this manuscript; or the decision to submit this manuscript for publication. The views expressed in this article are those of the authors and do not necessarily reflect the views of the Department of Veterans Affairs.

Funding: This study was supported by Veterans Health Administration Health Services Research and Development Service grant (IIR 14-063-2) to KMN. Student research support to CBK was provided by a National Cancer Institute predoctoral award T32CA092408.

Declarations of interest: None.

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SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.focus.2024.100257.

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