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Chronic disease management for recently homeless Veterans: a clinical practice improvement program to apply home telehealth technology to a vulnerable population

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Abstract

Background—Though vulnerable populations may benefit from in-home health information technologies (HIT) that promote disease self-management, there is a “digital divide” in which these groups are often unlikely to use such programs. We describe the early phases of applying and testing an existing Veterans Administration (VA) HIT care management program, Care Coordination Home Telehealth (CCHT), to recently homeless Veterans in the U.S. Department of Housing and Urban Development-VA Supportive Housing (HUD-VASH) program. Peers were used to support patient participation.

Methods—CCHT uses in-home messaging devices to provide health education and daily questions about clinical indicators from chronic illness care guidelines, with patient responses reviewed by VA nurses. Patients could also receive adjunctive peer support. We used medical record review, Veteran interviews, and staff surveys to “diagnose” barriers to CCHT use, assess program acceptability, explore the role of peer support, and inform future quality improvement.

Subjects—Fourteen eligible Veterans in HUD-VASH agreed to CCHT participation. Ten of these Veterans opted to have adjunctive peer support and the other four enrolled in CCHT usual care.

Results—Though barriers to enrollment/engagement must be addressed, this subset of Veterans in HUD-VASH was satisfied with CCHT. Most Veterans did not require support from peers to engage in CCHT but valued peer social assistance amidst the isolation felt in their scattered-site homes.

DISCLOSURE

All authors declare that they have no conflicts of interest.

Conclusions—HIT tools hold promise for in-home care management for recently housed Veterans. Patient-level barriers to enrollment must be addressed in the next steps of quality improvement, testing and evaluating peer-driven CCHT recruitment.

Keywords

Homeless; disease management; peer support

INTRODUCTION

Veterans are overrepresented in the U.S. homeless population.¹ Unfortunately, homeless Veterans have high rates of chronic illness,² limited primary care utilization,^{3–5} and an age-adjusted mortality that is nearly three times higher than their housed counterparts.⁶

To provide scattered-site housing and case management for homeless Veterans, the Veterans Administration (VA) partners with the U.S. Department of Housing and Urban Development (HUD) in the HUD-VA Supportive Housing (HUD-VASH) program. HUD-VASH is expanding⁷ but lacks programming to address engagement of recently housed Veterans with chronic illnesses in effective care. Veterans in HUD-VASH live in dispersed community apartments where they may have limited social support and transportation access. As health information technologies (HIT) can offer in-home health education and disease promotion,⁸ we aimed to apply and test an existing VA HIT program that provides care management for Veterans in HUD-VASH.

This program, Care Coordination Home Telehealth (CCHT), uses HIT and nurse care management to promote chronic illness self-management. CCHT uses in-home messaging devices to provide disease-specific health education and generate daily questions about relevant clinical indicators from chronic illness care guidelines. These messaging devices are linked to peripheral equipment, e.g., sphygmomanometers, and transmit information to VA nurses who monitor symptoms and adherence to recommendations.^{9, 10} Studies suggest that this program may reduce hospitalizations and improve quality of life.^{9, 10}

No studies to date explore CCHT for recently homeless Veterans. Though HIT programs that offer in-home health promotion may be valuable for vulnerable populations with limited social support, there is a “digital divide” in which these groups – who are often less technology-savvy – are often the least likely to utilize such programs.⁸ We used adjunctive peer support to bridge this divide and apply CCHT to Veterans in HUD-VASH.

This paper describes the early phases of applying CCHT to Veterans in HUD-VASH at VA Greater Los Angeles (VAGLA), including evaluation information from medical record review, qualitative interviews (N=9) with Veterans, and staff surveys (N=26). Our evaluation focuses on program acceptability to staff and consumers and the role of peers to support HIT-driven illness self-management.

METHODS

Setting

The Los Angeles Homeless Services Authority 2011 and HUD Continuum of Care 2009 point-in-time enumerations estimate that 8,600 Veterans/night are homeless in VAGLA’s catchment area. By the end of 2012, over 2,900 Veterans at VAGLA will have HUD-VASH housing.

Conceptual Model

The Clinical Excellence Commission of New South Wales developed a Clinical Practice Improvement (CPI) framework that guided this quality improvement (QI) project.^{11–14} This framework is built on Nolan's four-step Model For Improvement: 1) develop improvement aims; 2) identify strategies to measure improvement; 3) construct improvement efforts; and 4) launch Plan-Do-Study-Act (PDSA) cycles^{12–14} for iterative improvement with increasing complexity,¹⁴ through hypothesis formation (Plan), protocol implementation/data collection (Do), data interpretation (Study), and protocol refinement (Act).^{15, 16}

In turn, the CPI framework operationalizes the first three steps of Nolan's Model^{11–12, 14} and was employed by our operations team as a well-defined framework to pilot-test a scalable intervention.

The first two steps of CPI – project (problem identification, team-building, and goal setting) and diagnostic (data collection to “diagnose” the problem at hand) phases – develop improvement aims and measurement techniques. These steps are followed by the interventions (PDSA cycles), impact (outcome measurement) and sustaining improvement (system development for lasting improvement) phases.^{11, 12} This paper describes the first three phases of CPI.

Program Development

Project Phase—Despite high rates of medical illness,² only nine of ~2,000 Veterans in HUD-VASH were enrolled in CCHT at project inception. Stakeholders from CCHT, HUD-VASH, and the VISN 22 VA Assessment and Improvement Laboratory for Patient Centered Care (VAIL-PCC) – which supported this initiative – convened in October 2010. Two consumers from the Vet-to-Vet program, which offers peer support from Veterans in recovery from psychiatric illness,^{17, 18} also joined this workgroup. For Veterans in HUD-VASH, the stakeholders developed the goal to enroll/retain 50% of eligible Veterans in CCHT within two years.

Diagnostic Phase—The second phase of CPI explored barriers and facilitators to CCHT for Veterans in HUD-VASH. The workgroup developed flow charts of CCHT processes and brainstormed plans to address barriers to enrollment/engagement in this population, e.g., limited HIT literacy.⁸ Collaborative discussion led to the hypothesis that peer support^{19–21} could address these barriers.

CCHT Process Flow: Figure 1 depicts home telehealth pictorially. CCHT-eligibility criteria are standardized at VAGLA, regardless of housing status. That is, participants: 1) are high VA utilizers (\$25,000 use/year; all HUD-VASH Veterans met this criteria due to program costs); 2) have hypertension, congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), diabetes, obesity, and/or depression; 3) meet designated severity criteria for the aforementioned illnesses; 4) receive VA primary care; and 5) have landlines (mobile phone access was unveiled later).

Veterans were enrolled in disease-specific CCHT protocols and received an in-home messaging device that connects to a landline and ancillary equipment, e.g., scale. Devices were programmed with protocols that prompt Veterans to answer daily questions, e.g., weight for CHF patients, followed by delivery of educational messages. Each enrollee was assigned a nurse Care Coordinator who called Veterans if red flags were raised by responses to questions or with non-adherence (<5 days of use/week). Nurses alerted Veterans' primary care providers (PCP) when indicated.

Interventions Phase—After workgroup consensus to test adjunctive peer support with CCHT for Veterans in HUD-VASH, this intervention launched in successive PDSA cycles, beginning with one Veteran and subsequently scaling upwards.

Intervention Description: Figure 2 depicts components of the intervention. HUD-VASH case managers discussed CCHT with Veterans who had an eligible chronic illness to assess interest and confirm landline access. Next, to confirm eligibility, CCHT nurses reviewed the medical records of Veterans who agreed to participate, then called eligible patients to offer enrollment. Veterans who accepted were mailed CCHT equipment or scheduled for technician installation.

In parallel, HUD-VASH case managers offered Veterans referrals to adjunctive peer support. Peers called willing Veterans to introduce the program and schedule a home visit. Written scripts were developed for telephone and in-home communication between a team of two peers and Veterans, focusing on barriers and facilitators to CCHT utilization.

Peers met with Veterans' HUD-VASH case managers before the initial home visit to learn about relevant psychosocial circumstances. After biweekly Veteran encounters, peers discussed the visit with these case managers. Peers communicated with CCHT nurses about equipment/medical concerns and nurses dialogued with PCPs if indicated.

Recruiting Veterans: As the interventions phase began, recruitment was fraught with challenges. First, though VA databases identify Veterans with any contact with HUD-VASH staff, for housing inquiries or ongoing case management, it was impossible to query an accurate list of Veterans in HUD-VASH.

Second, CCHT-eligibility determinations are routinely made through manual chart review, incorporating patient adherence history, labs, and healthcare utilization. Without a database-driven algorithm to automate identification of eligible Veterans, HUD-VASH case managers had to refer Veterans with chronic illnesses for laborious nursing chart reviews to determine eligibility.

Third, though most Veterans in HUD-VASH were diagnosed with an eligible condition, many were consistently non-adherent with care. Even fewer met stringent disease severity requirements for CCHT enrollment. Moreover, HUD-VASH staff reported that many Veterans expressed suspiciousness about in-home technology and monitoring. Though peer support was conceptualized to address misconceptions and promote recruitment, peers did not approach Veterans who declined CCHT enrollment, in accordance with the Privacy Rule of the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

Formative Evaluation

In December 2011, we conducted a formative evaluation within the diagnostic and early intervention phases of CPI, with four aims: 1) To “diagnose” the identified problem, i.e., low rates of HIT-based care management for Veterans in HUD-VASH, by understanding barriers to CCHT; 2) To explore CCHT acceptability among consumers/staff, focused on its HIT component; 3) To understand the role of peers to support HIT use for recently homeless Veterans; and 4) To inform future CPI.

Despite recruitment obstacles, a small number of eligible Veterans in HUD-VASH agreed to CCHT participation (N=14) at the point of formative evaluation. When offered concurrent peer support, 10 of 14 agreed to participate in this portion of the intervention.

Data Collection and Measures—Data were triangulated from: 1) medical records; 2) semi-structured patient interviews; and 3) staff surveys. The VAGLA Institutional Review Board administrator deemed this evaluation a non-research VA operations activity and thus exempt from IRB review.

Medical Record Review—We reviewed two calendar years (2010–2011) in the VA Computerized Patient Record System for demographics, housing history, diagnoses, and CCHT retention data of enrollees. We present descriptive statistics for participants.

Qualitative Interviews—Two authors (SG, AY) conducted semi-structured, qualitative interviews with Veteran participants, focused on barriers to CCHT, program acceptability, and the role of peers. We were limited to nine interviews by the Paperwork Reduction Act (PRA) of 1995, 5 CFR 1320.²² Using a purposive sample, we interviewed seven of the ten Veterans in HUD-VASH with CCHT and peer support and two of the four Veterans in HUD-VASH with CCHT usual care (no peer support). All but one interview was conducted by phone. Interviewers asked Veterans to describe CCHT experiences, including participation barriers and global impressions. All Veterans were asked general questions about social support. Patients with peer support were asked to describe these experiences, with specific questions about the role of peers to support the use of CCHT equipment. Initial questions were open-ended, though subjects were subsequently prompted to provide examples of in-home messaging device use and staff interactions.

HIPAA prohibited verbal consent to audiotape phone interviews. Both interviewers took detailed interview notes, capturing dialogue verbatim or paraphrased. Notes were compared for consistency, discrepancies resolved, and compiled into a single file within three days of each interview. Two authors (SG, AY) reviewed the compiled notes, developed an initial deductive code list from the interview guide and independently coded interview notes, adding additional codes for emerging themes. Coding was compared and minor discrepancies were resolved through discussion. No major coding discrepancies emerged. Codes were refined, collapsed or expanded as needed and major themes were synthesized across codes. Results were discussed with other authors for refinement.

Staff Survey—HUD-VASH case managers (N=20) with participating Veterans, CCHT nurses (N=3) and peers (N=3) completed a web-based survey (response rate=100%) in January 2012 to assess attitudes towards the intervention's HIT and peer components. This multiple-choice and open-ended written answer questionnaire queried respondents' demographic/professional characteristics and assessed staff satisfaction. We present descriptive statistics of this survey.

In addition, staff developed lists of CCHT-enrollment barriers for this population. Five individual lists were generated (two from social workers, two from nurses, and one from a peer) and reviewed by the stakeholder workgroup, including three authors (SG, AY, LG). Lists were compared for common themes and additional barriers were added iteratively. Minor discrepancies were resolved in stakeholder workgroup discussion and a consensus list emerged. This process was critical in the diagnostic phase of CPI.

RESULTS

Chart Review

Table 1 presents participant characteristics at the time of evaluation. Participants were mostly male, elderly, white or African American, and chronically ill.

Veteran Interviews

We report findings from semi-structured interviews with a purposive sample of nine participants: seven with peer support and two without peer support. Overall, CCHT equipment was deemed easy to use. Though most Veterans reported few difficulties with this HIT component of home telehealth, several were helped by peers at enrollment or when technical problems arose. Many Veterans felt isolated and named social support as the key benefit of peers.

CCHT Feasibility—Overall, the messaging device was described as user-friendly. As one subject said, “I don’t think it could get any easier. A third grader could use it.” Nearly all Veterans reported following simple prompts and did not need assistance. As one Veteran said, “All you gotta do is go sit down with the machine, push those answers.”

Only one Veteran described peer support that facilitated use of CCHT equipment. He reported, “In the beginning of the program, I really needed them ... To me, never [having used] the machine, it wasn’t easy...[the peers] helped me a great deal.”

Peer support for CCHT—Most Veterans did not need peer support to use the messaging device. As one participant said, “No, [they] didn’t change anything. I picked [the equipment] up and used it on my own.” However, when technical problems arose, several Veterans found peer support valuable. One participant said, “One time [the device] was broken...[the peers] did get in touch with someone...the lady had to come and fix it.”

One participant reported difficulties with the messaging device but did not find peer support helpful. As he described, “In the last five years I’ve lost some of my cognitive abilities...the [nurse] tells me, ‘push that button, pull that chain, and put [your blood pressure] in.’ I can never get past ‘push that button.’” He did not feel that peers helped with CCHT’s HIT component and relied on nursing staff instead.

The two Veterans with CCHT usual care (no peer support) did not trust peers to help with telehealth equipment. One described, “I don’t trust other Veterans. I don’t think they are competent.” The other said, “[Veterans] don’t know what they are talking about.”

CCHT Satisfaction—Regardless of peer involvement, health education and disease monitoring were salient in Veterans’ discussion of benefits of the CCHT’s HIT component. However, many participants felt detached from the technology and thought the messaging device was impersonal.

Subjects reported varying educational benefits of HIT-driven messaging. One Veteran stated, “When your blood sugar is high, it explains what it does to your other organs, what it does to your brain.” Another reported, “I love the trivia and facts at the end of the [messaging] session. It gives me information I would never get anywhere else.”

However, for some, HIT-driven health education was limited and repetitive. One subject described, “It gets mundane and monotonous...There are times when it says the same thing over and over.” Another reported, “It’s asked me the same questions [everyday] for like a year.”

Nearly all participants stated that CCHT technology and nursing interventions work together to promote illness self-management. As one Veteran said, “I had walking pneumonia and I didn’t know it...it told you the different colors of your sputum...I didn’t know I had a really bad sputum...It told me to call the emergency number and they told me to go to the ER.”

Another reported, “The [nurse] will call, and say, well, your blood pressure or glucose is not looking good...you need to go into the emergency [room].”

Others described benefits from the HIT component of CCHT outside of emergencies. One Veteran said, “I went to the diabetes doctors...[they] said that I’m under complete control. That’s basically because the [CCHT equipment] tells me what to do...the calls provide encouragement.” Another described, “The machine...if I didn’t have it monitoring...I wouldn’t know that things are going wrong.”

Psychosocial Support and CCHT—Most Veterans felt detached from the HIT component of home telehealth and wanted a personalized connection. As one Veteran described, “It would be good to have a human...Good to have a phone call...to feel like there is someone paying attention.” Another found it “nice to check in with a [machine] but nice to...have a voice to voice connection.”

Social isolation was voiced frequently. One subject said, “You have to understand something about me. I have no friends.” Depression was described spontaneously. A participant said, “I get lonely, my mind starts feeding on my illness, and my imagination just blows things out of proportion.” Another reported, “I suffer from severe depression and don’t answer the phone or leave the house.”

Many isolated participants valued peer support. One subject said she can “talk about everything [with these peers]. My school, personal life, my medical problems.” Another stated, “It makes me feel good that someone is thinking about me, is in my corner to keep me on the right track.” A few Veterans had more extrinsic support and less need for peers. For example, one participant involved with Alcoholics Anonymous said, “I don’t see [the peers] that often, I’ve got a lot of commitments...it’s easier for me to go to AA.”

Both Veterans with CCHT usual care did not want additional support. One Veteran was grounded by religion and said, “I turn to God [for support]...God gave me the ability to talk to people to get the answers.” The other stated, “I don’t need emotional support. I’m not that type.”

Staff Surveys

Qualitative findings were supported by staff surveys. Table 2 describes staff respondents. Most staff were in their 40s, female, white or African American, and well-educated.

CCHT Satisfaction—When asked for brief descriptions about the role of CCHT for Veterans in HUD-VASH, the HIT-equipment was described as a “great opportunity to monitor...health without having to see a doctor” and an “avenue for monitoring and intervening early.” However, staff wished “more disorders [were] added to [CCHT]” and requested more flexibility surrounding eligibility and adherence requirements for the messaging **device**.

Peer Support for CCHT—Program staff were mostly ambivalent (>60%) as to whether peers affected CCHT use. Table 3 presents responses to relevant survey items, with 23/26 (88.5%) of staff completing this portion of the questionnaire. Most staff expressed that Veterans in HUD-VASH are socially isolated and agreed that peers provide social support for this group.

CCHT Enrollment Barriers—Staff developed a consensus list of CCHT enrollment barriers, which fell into three domains:

VA database barriers surrounded the lack of database-driven algorithms to identify Veterans in HUD-VASH and ascertain CCHT-eligibility.

Patient-level obstacles included ambivalence for self-management, poor adherence to care, and distrust of in-home HIT-equipment. Veterans grew disinterested in CCHT during the arduous process of eligibility determination, equipment receipt, and program enrollment. Furthermore, most Veterans in HUD-VASH did not meet disease-specific severity criteria required for CCHT eligibility.

Staff-related barriers focused on the large caseloads of HUD-VASH case managers, necessitating crisis-management over “prevention.” Case managers expressed discomfort addressing medical illnesses.

DISCUSSION

HIT-driven care management can be valuable for Veterans with chronic illness but special efforts are needed to bridge the digital divide that marginalizes vulnerable sub-populations from technology-based innovations.⁸ To our knowledge, this is the first QI effort to explore an application of home telehealth for recently homeless Veterans. The CPI framework provided a theory-driven QI model, with formative evaluation that diagnosed barriers to CCHT participation, explored program acceptability, and guided ongoing improvement.

There were profound barriers to enrolling Veterans in HUD-VASH in CCHT. We could not automate CCHT-eligibility determinations and the severity criteria required for CCHT precluded participation of many patients with chronic illness. Furthermore, despite concerted efforts to recruit Veterans in HUD-VASH to CCHT, suspiciousness about in-home HIT-equipment and non-adherence to care resounded. Most patients approached were unwilling to enroll in CCHT, even with peer support. These challenges highlight the many difficulties in developing QI programs for vulnerable populations, whose health behaviors may conflict with illness self-management efforts.

It is important to address these barriers in light of our evaluation results. At this early phase of CPI, though participating Veterans compose a small and unrepresentative group, their experiences provide preliminary support of HIT acceptability for a subset of Veterans in supportive housing. Most Veterans in our sample did not require peer support to use HIT and attributed health education and disease monitoring benefits to their in-home messaging device. However, Veterans described social isolation in their dispersed housing arrangements, felt detached from the impersonal nature of the HIT intervention, and valued social support from peers. These views were echoed by staff.

Tentatively, our results suggest that Veterans in supportive housing with limited informal supports may self-select for participation in an HIT-care management program with peer support. This hypothesis requires testing in future cycles of rapid-cycle change, with an initial social support assessment at the time of CCHT enrollment and adjunctive peer support offered to Veterans who endorse isolation.

These findings are exploratory and have limitations. First, our data beg questions about eligible Veterans in HUD-VASH who did not agree to CCHT enrollment. We suspect that peers could have a significant impact in breaking down patient-level barriers to participation in HIT-driven care management. Unfortunately, at the time of this evaluation, institutional obstacles prevented peer contact with Veterans who refused to enroll in CCHT.

Second, HUD-VASH consumers differ from the broader homeless population and our formative evaluation was performed on a small, self-selected sample of persons in supportive housing. Care management programs for all homeless Veterans are vital to

address disparities in VA health service utilization.^{3, 4} Last, the slow, iterative nature of our framework promotes QI, but this formative evaluation does not enable us to analyze health outcomes that will be important in future improvement efforts.

CONCLUSIONS

As HUD-VASH expands, the VA must develop mechanisms to address the high rates of chronic illness in recently housed Veterans. HIT tools hold promise for in-home care management for recently housed Veterans, but efforts to apply HIT to this group should consider the social isolation and digital divide faced by this vulnerable population. These findings evoke preliminary support for CCHT acceptability among Veterans in HUD-VASH, but patient-level enrollment barriers must be addressed in subsequent PDSA cycles, facilitating VA institutional capacity to circumvent obstacles to peer-driven recruitment and assessing the results of these efforts.

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Figure 1.
Care Coordination Home Telehealth (CCHT) Program

Figure 2.
 Peer Support and CCHT Program Description for Veterans in HUD-VASH

Table 1

Characteristics of Veterans in HUD-VASH Enrolled in CCHT, With and Without Peer Support

	CCHT with peer support N = 10	CCHT usual care (without peer support) N = 4
Demographics		
Sex	Male = 7	Male = 3
	Female = 3	Female = 1
Age (Mean $\pm$ SD) *	63 $\pm$ 14	64 $\pm$ 11
<i>Race/Ethnicity</i>		
White	40%	25%
African American	40%	50%
Hispanic	10%	25%
Unknown	10%	0%
Housing Status		
HUD-VASH Duration * (months since program admission) (Mean $\pm$ SD)	28 $\pm$ 5	26 $\pm$ 4
<i>Housing arrangement immediately before HUD-VASH admission</i>		
Mission, homeless shelter, or transitional shelter	10%	0%
Street or other outdoor public place	10%	25%
Home of a family member or friend	30%	75%
Rehabilitation program	50%	0%
Housing arrangement prior to rehabilitation program for Veterans in this sub-group		
A mission, homeless shelter, or transitional shelter	10%	N/A
The street or other outdoor public place	10%	N/A
In the house of a family member or friend	20%	N/A
Unknown	10%	N/A
CCHT Program Enrollment		
Duration of CCHT Enrollment, months (Mean $\pm$ SD) *	15 $\pm$ 3	13 $\pm$ 5
Veterans with CCHT Drop-Out	0%	25%
Peer Support		
Duration of V2V Peer Support (range) *	4–14 months	N/A
Clinical Information		
<i>CCHT Enrolled Protocol (Veterans can be enrolled in 1 or 2 disease-specific protocols)</i>		
CHF	0%	0%
COPD	40%	0%
Depression	20%	0%
Diabetes	40%	25%
Hypertension	30%	100%
Obesity	0%	0%
<i>General Medical Diagnoses</i>		

	CCHT with peer support N = 10	CCHT usual care (without peer support) N = 4
Coronary Artery Disease	30%	25%
CHF	0%	0%
Chronic Pain	70%	50%
COPD	50%	25%
Diabetes	50%	25%
Dyslipidemia	80%	50%
Hepatitis C	20%	25%
History of stroke or Transient Ischemic Attack	20%	50%
Hypertension	50%	75%
Obesity	40%	50%
<i>Mental Health Diagnoses</i>		
Mood disorder (depression or bipolar disorder)	60%	75%
Post-traumatic stress disorder (PTSD)	30%	25%
Anxiety disorder (other than PTSD)	20%	25%
Psychotic disorder	10%	0%
Cognitive disorder	30%	0%
<i>Substance Use Disorders (active or in remission)</i>		
Alcohol abuse or dependence	30%	75%
Cannabis abuse or dependence	20%	50%
Cocaine abuse or dependence	30%	25%
Opioid abuse or dependence	10%	0%

* As of formative evaluation in December 2011

Table 2

Staff Demographic and Professional Characteristics (N = 26)

Characteristic	N (%) <i>(unless otherwise specified)</i>
Program Affiliation	
HUD-VASH	20 (77%)
CCHT	3 (12%)
Vet-to-Vet Peer Support	3 (12%)
Age (<i>mean $\pm$ SD in years</i>)	42 $\pm$ 14
Gender	
Female	23 (88%)
Male	3 (12%)
Race/Ethnicity	
White	9 (34%)
African American	10 (38%)
Hispanic	0 (0%)
Asian American	4 (15%)
American Indian/ Alaskan Native	1 (4%)
Native Hawaiian/ Other Pacific Islander	0 (0%)
Decline	2 (8%)
Self-identify as a Veteran	
Yes	5 (19%)
No	21 (81%)
Educational Background	
Did not complete high school	0 (0%)
High school graduate (diploma or equivalent)	1 (4%)
Some college	1 (4%)
Associate degree	0 (0%)
Bachelor's degree	3 (12%)
Master's degree	19 (73%)
Professional degree	1 (4%)
Doctorate degree	1 (4%)
VA Employment Duration (<i>median, (range) in months</i>)	17 (2–337)
Veteran Case Load (<i>median, (range) in months</i>)	47 (0–697)

Table 3

Staff Attitudes about Program Components*

Characteristic	Strongly agree N (%)	Agree N (%)	Neither agree nor disagree N (%)	Disagree N (%)	Strongly disagree N (%)
Peers did not affect how Veterans use Home TeleHealth.	1 (4%)	0 (0%)	14 (61%)	6 (26%)	2 (9%)
Veterans in HUD-VASH housing are socially isolated.	4 (17%)	9 (39%)	7 (30%)	3 (13%)	0 (0%)
Peers are a source of social support for Veterans in the program.	7 (30%)	7 (30%)	9 (39%)	0 (0%)	0 (0%)

* N = 23 (3 staff participants did not complete this section of the survey)