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Heart Failure Patients' Experiences of a Self-Management Peer Support Program: A Qualitative Study

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Abstract

Objectives—Explore the experiences of patients with heart failure in a self-management support program to inform the development of future interventions that support and motivate patients to engage in selfmanagement.

Background—Peer-support programs have led to improved outcomes among patients with other chronic conditions and may result in similar improvements for heart failure patients. Yet, among patients recently hospitalized for heart failure, over half had no or minimal engagement with a reciprocal peer support program.

Methods—Qualitative semi-structured interviews with a purposive sample of 28 patients (mean age 72; 71% Female; 21% African-American; 75% Caucasian) with different levels and types of engagement in a heart failure self-management support program.

Results—Key themes that emerged included the importance of heart failure specific-social support, sharing information, comparing self to others, depression, and functional status.

Conclusions—Useful services for heart failure patients provide comfort, restore confidence and offer practical solutions.

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The study was approved by the Institutional Review Boards of the University of Michigan, the Ann Arbor VA Healthcare system and the community hospital at which the Buddy Study was conducted.

Keywords

heart failure; peer support; randomized controlled trial; self-management; qualitative

Introduction

Heart failure (HF) affects an estimated 5.8 million people in the United States and is one of the most common causes of hospitalization in persons over 65 years old (1, 2). Patients with HF have improved clinical outcomes through more effective self-management (SM) skills and techniques (3). Self-management support for HF has been defined by the Institute of Medicine as “the systematic provision of education and supportive interventions by health care staff to increase patients’ skills and confidence in managing their health problems, including regular assessment of progress and problems, goal setting, and problem-solving support.” (4) Some key SM tasks include monitoring rapid weight gain, adjusting salt and fluid level intake, taking medications, and participating in physical activity. The complexity of these prescribed SM tasks makes it difficult for many patients with HF to avoid exacerbations that require hospital readmission (5, 6, 7). Moreover, many patients are not able take advantage of the multidisciplinary services proven to decrease HF readmissions (8). Patients’ inability to complete SM tasks contributes to preventable hospitalizations and high hospital costs (9). Despite efforts to improve HF care, the annual rate of nearly one million HF hospitalizations in this country has not changed over the past ten years (10). A range of interventions, from tele-monitoring to group-based SM support, that aim to improve SM for patients with HF and prevent hospitalizations and death have been studied (11, 12). Many of these HF interventions, however, have had little to no effect on morbidity and mortality (13–19). In spite of the relative lack of success of many SM support interventions, researchers recognize that social support may be an independent factor in mortality and morbidity of patients with HF (20).

In an effort to effectively mobilize support among HF patients, Heisler et al. (21) conducted a randomized control trial to test a reciprocal peer support program for patients with HF: The Buddy Study. This program included telephone-based peer support among patients with HF along with optional group sessions led by a HF nurse practitioner (NP). A successful diabetes peer support intervention provided the model for the group and telephone peer contacts undertaken in the intervention (22). Patients were recruited from a local community hospital and randomly assigned to either a Peer Support or Nurse Practitioner Care Management arm. Those in the Nurse Practitioner Care Management arm received a one-time nurse practitioner-led HF SM group session, encouragement to follow-up with the HF NP, and educational materials. Those in the Peer Support arm participated in the program consisting of three components: group sessions, peer partner telephone calls, and educational materials. Participants completed quantitative assessments at baseline and at 6 and 12 months follow-up.

Heart Failure NPs first led group sessions to provide information and allow interaction among patients with HF at a local community hospital immediately after randomization, and then 1, 3, and 6 months post-randomization. Second, participants were matched with other

participants to help each other as peer partners and provided with a no-cost telephone system that would automatically connect them to their peer partner using interactive voice response (IVR) technology. The system recorded call initiation, frequency, and duration, set time periods in which calls could be blocked, and also generated automated reminders every 7 days if no calls were attempted. The system also enabled participants to leave voice messages for research staff or HF NPs. Participants were encouraged to talk at least weekly with their peer partners. Finally, participants received educational materials including a workbook containing information on meal plans, ways to reduce sodium intake, and guided worksheets with action-planning tools and a DVD illustrating the ways in which peer telephone contacts could be used to support SM efforts. In order for home-bound patients to participate in the program, all materials were mailed to them and they were offered an individual telephone, rather than face-to-face, orientation to the program components.

We developed this current study to examine the experiences of participants in the reciprocal peer support program, understand the strongest incentives or barriers to successful engagement, and determine the factors that were most and least helpful to the participants. We sought to understand these factors in order to inform the development of future interventions that support and motivate patients with HF to engage in SM. Accordingly, the specific aims of this study were to: 1) identify the factors influencing the program's effectiveness; 2) understand how participation in the program influenced HF SM, perceived social support, and satisfaction with care; 3) identify personal and program barriers and facilitators to participation; and 4) inform future peer support and SM interventions for patients with HF.

Methods

We purposefully sampled participants enrolled in the reciprocal peer support arm of the Buddy Study and conducted semi-structured interviews based on their engagement in the program. Because it was important to understand barriers and facilitators to participation, the aim was to characterize participants based on their level and type of engagement in the intervention and to draw comparisons among them. Engaged participants were those who either talked with their peer partner for more than 17 minutes (the mean call duration among participants) or attended 2 or more group meetings, or a combination of the two. Not-engaged participants were those who spoke to their peer partner for less than 17 minutes or attended 1 or 0 group meetings.

The study team consisted of a study coordinator (EL), a qualitative methodologist (JF), the project manager (RM), and the principal investigator (MH). Three of the 4 team members (EL, RM, and MH) were involved in implementation of the Buddy Study, with JF serving as a consultant to the present study. All team members had worked with at least one other team member on previous studies.

Three members of the study team (EL, JF, and RM), with guidance from MH, developed an interview guide based on study aims and first-hand knowledge of the program, with the goal of understanding participants' experiences with and appraisal of the study in the context of living with HF. Targeted questions on patient motivation, perception of self as compared to

others in the program, and information about specific SM behaviors were added as the study progressed in response to information from concurrent data analysis (Appendix 1).

The first author (EL) conducted semi-structured interviews with study participants within 6 months of their completion of the Buddy Study intervention. She obtained written informed consent from each participant interviewed in person just before beginning each interview. For participants interviewed over the telephone, the interviewer reviewed the consent form and answered any questions over the phone, then mailed the consent form to participants, who completed and returned them. The study was approved by the Institutional Review Boards of the University of Michigan, the Ann Arbor VA Healthcare System and the community hospital at which the Buddy Study was conducted.

Interviews were audio-recorded and transcribed verbatim. Three study team members (EL, JF, RM), with periodic guidance from the senior author (MH), conducted within-case and cross-case analyses to both understand each participant's experience with the program and to identify common themes. Techniques used in grounded theory methodology were utilized, including constant comparison and inductive identification of themes from the data (23). Three members of the study team (EL, JF, RM) developed preliminary descriptive codes through discussion based on study aims and review of the transcripts. A matrix display was created that grouped engaged and not-engaged participants in order to look across cases by code and to compare the two groups (24). These team members refined the coding scheme to produce a final codebook through iterative independent coding of the same data. Team discussion was then used to reach agreement on codes and code definitions (25). The lead author then coded all transcripts using this codebook. The team reviewed, summarized, and discussed reports of all data under each code to develop the themes reported in this manuscript. Thematic saturation was reached for engaged participants on all themes. The number of not-engaged participants was limited due to difficulty in recruiting them into the study. The sample size, however, produced credible and useful findings (26). More interviews may have yielded additional themes; however, each of the themes we report were expressed by multiple non-engaged participants.

Results

Of 37 participants contacted via telephone to participate in a qualitative interview, 28 (76%) agreed to participate. Reasons given for non-participation included not having enough time, not wanting to, and not feeling well enough. Eighteen engaged and ten not-engaged participants were interviewed. Interview length was not systematically recorded, but interviews lasted approximately 40 minutes. Nineteen interviews were conducted in participants' homes, 9 were conducted at the community hospital, and one was conducted over the telephone. Participants were 52 to 92 years old, with a mean age of 72.39 years ($SD = 11.73$). Eight men and 20 women were interviewed, with most (75%) being Caucasian. Of the 28 participants, few (25%) reported their health status as being fair or poor (Table 1).

The main themes that emerged from the interviews were related to heart failure-specific peer support, friendship, information exchange, acceptance and control, comparing self to others, depression, effectiveness of program materials, low functional health status, poor group

attendance, and peer partner assignment. The themes that emerged from the engaged participants were generally interpersonal, such as friendship and exchanging information with others. The themes that emerged from the not-engaged participants, however, were generally related to individual factors, such as low functional health status.

Factors that Influenced Engagement in the Program and Self-Management Activities

As reported in their baseline assessments, many participants enrolled into the Buddy Study had emotional and SM deficits related to their HF. Those who engaged described several ways in which the program addressed these needs. For some, the peer interaction was powerful; it gave them hope seeing others living with HF. It was also transformative, allowing some to start or become more consistent with SM behaviors such as weight monitoring and adjusting salt and fluid intake. For others, it was a source of additional emotional support and information that helped them achieve their SM goals. In comparison, those who were classified as not-engaged reported several barriers to participation. Many were too sick to participate or found that the program did not offer them the type of support they needed. The experiences of participants classified as engaged in the program are presented, followed by themes salient to both engaged and not-engaged participants. Finally the experiences of those classified as notengaged will be discussed.

Engaged Participants: Reasons for Engagement

HF-Specific Peer Support—The most important part of the program that engaged participants mentioned was the ability to talk with, share, and learn from other people with HF. Even if participants had support from family and friends, many valued being part of a group in which they felt understood by others with the same condition and could share their similar experiences and challenges. A retired nurse who had technical knowledge of HF but not much emotional support said:

It was kind of like, you could understand, or at least I felt I could understand, and he could understand what was going on with me...And you can't expect your significant other, husband, wife, what have you, to truly understand what you're going through if they've not been there.

Similarly, peers who also had HF gave participants the confidence to engage in day-to-day activities that their families did not provide. One woman had family members so concerned about her health that they did not want her to do many things on her own. Her involvement in the group classes and talking with her peer partner helped her change her attitude:

When it's your family it's like 'Well, you know I'd like to do this' [and they reply] 'No, no, you don't need to do that', where with the support group if you said 'Well, you know, I think I'd like to paint a bedroom' [they said] 'well, go ahead, you can paint a bedroom, just do it at your own pace'. They have a lot of answers for you, where your family just, they want to baby you.

Interaction with other people living with HF also helped participants realize that they were not alone, an experience one participant described as "joining in our difficulties." Sharing the illness experience also enhanced the credibility of the advice the participants gave to one another. One man stated:

It's someone you can talk to that is in a similar situation that you are in...like I said, you can't just go out here and sit in the barber shop and just say 'Hey barber, I got this'...it's worthwhile when you have somebody that has something you can give each other feedback on what they doing during their daily life.

As a result of sharing their experiences and feelings about their HF, engaged participants cited an increased feeling of comfort and caring as motivating improved SM. The comfort and caring came mainly from their peer partner, finding others to share with, and feeling understood by those who had undergone similar changes in their way of life. One participant reflected on her interactions with her peer partner, who was over 90 and lived by herself in her own home by stating, "It was a great source of comfort because we could identify with each other's need and make the adjustment, of course, that we have to make in life."

Moreover, while some participants felt that that they did not have adequate emotional support from their doctors, they cited the program as a way to receive that support from someone else, specifically from a peer. A participant, who had severe edema for about 2 years prior to being diagnosed, said that she received emotional support from her peer partner that she did not get from her doctors during those years, "The one thing that my partner would always say to me is, 'We're going to be ok, we're going to be ok', and I think I needed that, I think I just needed to hear that."

Participants relied not only on each other for support but also on the program staff and materials for information and a sense of caring that they were not previously receiving. Other participants endorsed the importance of receiving follow-up from the hospital setting and from the study staff and not being left to fend for themselves:

I think the fact of the Buddy Study, the fact that the hospital or the caregiver, the doctors, whoever started the Buddy Study, felt that it was important ... I think just psychologically it's a good thing to know that people want to support you and be there for you.

Friendship—Another aspect of the program that led participants to engage was the development of a friendship with each other. Although there may be some overlap in some aspects with HF-specific peer support, friendship was defined as any instance a participant referred to their peer partner specifically as a "friend". Some participants developed friendships that lasted beyond the program and spoke with each other about themselves and their lives, not only about their HF. When asked about the greatest benefit he received from the program, one of the men who spoke more with his peer partner than all other participants responded:

Meeting [peer partner]. Because all the other stuff was important, but to meet a good friend – see good friends are hard to come by nowadays and I'm aware I have a heart condition, but meeting a good friend, and then being able to talk about certain things is something else.

The friendships that many participants developed were beneficial not only socially, but were a source of practical medical advice as well. Many participants who developed friendships with their peer partners reported taking better care of themselves and being able to better

manage their HF. A woman who lived by herself described the link between her SM and the friendship she gained in the program:

Since we've been calling each other, we've gotten to be close friends...and she had a big impact on my life, talking to her, we would have fun talking to each other on the phone. And I ask her are you taking your medicine? Are you doing this? And she would ask me, you know, just nice little friendly conversation...it was a joy just to talk to her.

Information exchange—Some participants said that they had not received or could not assimilate the information they gained from their physician, but that the information from the Buddy Study helped them to more effectively manage and deal with their diagnosis, as well as provide them with more information on their SM activities. The participant who had severe edema said:

I wanted information, then I really wanted to learn more because I didn't really know a lot, I don't know, I just felt that I was naïve, or that I really wasn't listening in the hospital, or they weren't really telling me, it was probably a little of everything, it was like I wasn't hearing everything. ... I just don't think I'm the only person that would say 'I really don't understand what this is all about'.

As a result of her participation in the program, she went on to state that she has integrated that information into her day-to-day SM practices, "I absolutely weigh myself every single morning...I do weigh myself every day and I really watch my sodium...I look at every label and keep a close eye on it."

The method by which most participants assimilated information was by sharing experiences and tips for SM during the groups and with their peer partners. A dedicated grandmother of four grandchildren stated that through her participation in the group meetings:

I have just become more aware of the many things that I've done wrong and you know before the program, particularly as far as eating the right food, so it has made me much more aware of the things that I should not eat...it's raised my awareness of how important diet is.

Acceptance and Control—Some participants who engaged in the intervention described being more aware of and accepting of their diagnosis. They also cited being able to take control of their own care instead of having to rely on family or other caretakers. For example, one participant liked to spend time with friends in bars and have occasional cigarettes. He said that he previously did not think much about his actions and how they affected his health. After being diagnosed with HF and his subsequent participation in the program his outlook on life changed:

I think that's what the program was really all about, taking care of yourself, being more aware that you have a condition and you're the only person who can change it. I mean you take all the pills in the world, if you don't do something for yourself, it ain't going to make no difference anyway...I'm not saying that I'm following it all-but as long as you are aware of these things, it makes a difference.

Comparing Self to Others—Some participants found that it was beneficial to be face-to-face with others with HF so that they could evaluate and compare their own health and level of functioning, particularly to those perceived as worse off. This allowed many to feel that they were in better health than they had thought and gave them a sense of hope about their survival with the illness and their ability to manage it. A woman who lived by herself stated, “I think the Buddy Study helped...listening to other people’s problems, and I decided I wasn’t so bad off...listening to other people’s problems and finding out they’re worse than yours.”

Comparing oneself to those perceived as worse off gave some participants a sense of gratitude for their situation. As one woman said:

There were people in it that was worse off than myself and I thought, ‘ok, they’ve had this going and I was very fortunate, I only had a pacemaker put in’. And people had worse heart conditions than I did so I was kinda blessed in that respect – that it helped me to look at myself and say, ‘ok, I’m doing quite well’.

Such comparisons could also instill fear that motivated some participants to take better care of their own health. When asked what part of the program she liked the most one woman responded:

I guess the group meetings. I like those because it gave me a chance to see other people who are worse off than me....that’s a terrible thing to say, but, on the other hand it made you think twice if you didn’t take care of yourself, that’s where you were going to be.

Some participants were inspired to take better care of themselves by other patients with HF who were doing well with SM. One participant who was younger than her peer partner said:

I know that my buddy helped me a lot. She was a very regimented person also so she didn’t have problems taking her pills and weighing herself and that stuff. And she actually exercised every day, which kind of motivated me and I thought if this woman can do it [in her 80’s], certainly I should be able to do it.

Themes discussed by Participants from both Engaged and Not-Engaged Groups

Depression—A common theme expressed by both engaged and non-engaged participants was about how depression - their own or others’ - influenced their participation in the program. Participants at times mentioned depression explicitly, but more often used phrases like “puddle of despair” and “down in the dumps.” Some participants avoided being around depressed people so they would not become depressed themselves. For them, there was a sense of being vulnerable to depression because of their illness. For example, one woman who did not return to group classes or continue to call her peer partner wanted to avoid getting into “a puddle of despair,” and described the one class she attended as follows, “One woman said, ‘I don’t think it’s worth it, I just sometimes feel like I just want to die.’ Um, she was gloom and doom depressed. And I thought that’s how I’m going to get.”

She also described her peer partner as being depressed and did not want to feel responsible for her, “It would upset me so much... feeling responsible for this other person... she was gloom and doom depressed.”

Being depressed could be either a barrier to engagement or a need for support that the program addressed. For example, one participant who did not engage in the program told the researchers that she avoided group classes because of a need to withdraw, “I go into kind of periods of I just want to be alone. I have my Greta Garbo moments. Which is very unlike me. I never avoided company before.” However, for another participant, who described going through a “big depression” after having bypass surgery and prior to participating in the program, engaging in group classes and with her peer partner gave her the support she needed:

I get depressed, but I’m a fighter. You know, like knock it off, this is enough...but I can remember thinking I should use all the help I can after going through that bypass and through that big depression...that I might need support. And I’ll tell you, whew, I got support.

Effectiveness of Program Materials—There was little use of program materials among both engaged and not-engaged participants. Although many participants valued the practical and personal tips they got from others in the program, most did not feel that the prepared materials made much impact on their SM. Most participants did not watch the DVD, and said something similar to one woman who reported, “As far as looking at the DVD, I didn’t do it. Basically I’m not a big technological person. And to use a DVD and to put it in and all that stuff. Well it can be confusing, but it’s just not something that I normally do.” Although some said they were glad to have the workbook for reference, most said they did not use it as an integral part of the program. For example, one man said, “What I saw of them were good but ...I didn’t implement them like I could have...you guys put out good material, good helping material, it’s just that I’m lazy.”

Assessments of the workbook materials on goal-setting and action planning were mixed. Some either never used the material or did not find it useful, while others found the action planning useful because it made them accountable to their peer partner. In describing this, one participant said, “I had a goal. I thought that I would benefit by more exercise...so I just did what I could because she would always ask me...I think I got into it more because I knew she was going to ask me.”

Not-Engaged Participants: Barriers to Engagement

Low functional health status—Some of the participants enrolled in the Buddy Study were too ill to participate. Some were home-bound and others were hospitalized. Some who were too ill were quite distressed about not being able to participate and thought that the program would have been useful for them. The wife of an extremely ill patient, who was home-bound and could not attend any classes, said:

You know, he had every intention of going, it was just that he’d end up being too sick that day...if it’s too hot out or too humid, he can’t leave the house. If it’s too

cold, he can't leave the house...it was something medically that caused him to not be able to attend.

Poor Group Attendance—Some groups were small as a result of the study design, particularly randomization and the strict timeframes required for enrollment. Those classes with smaller numbers, at times only one participant, were very different in terms of feeling and interaction than those classes with more people. Most of those who were in the smaller classes said that they would have liked attendance to be higher and felt they would have benefited more by having the opportunity to share with more of their peers in a face-to-face setting. In essence, they did not experience the heart-failure-specific peer support that those in classes with higher attendance valued. For example, a woman who was in a class with only one other participant said:

I think if there was a larger group and they were more outspoken about themselves, where some people don't wanna say anything, they just keep it to themselves rather than sharing... it's sad that people don't come when they say they're going to come, 'cause you're looking forward to seeing these people and kind of hoping that maybe they'll shed some light on what you need to hear. You don't know, maybe they've been it a little bit longer.

Peer Partner Assignment—Some people felt like they did not have much in common with or had a peer partner who was too ill to participate. This lack of connection led many to never call or stop calling their peer partner or to become frustrated with the phone call portion of the program. One participant said, "Whether I helped her or not, I don't know... she got bored talking with me...and I have to tell you, I kind of got bored talking with her." And a participant who had a very sick partner said, "I guess actually the least useful, truthfully, was the phone part, which is unfortunate and that was strictly just because of my partner – who my partner was and what stage of her life she was. That was hard."

Discussion

To inform the design of successful programs for patients with HF, it is essential to learn as much as possible about program components that are most effective and engaging for participants. This qualitative evaluation of a reciprocal peer support program for patients with HF examined their experiences in order to understand the most and least helpful factors and the strongest incentives or barriers to successful engagement. In general, engaged participants cited HF-specific peer support and other interpersonal factors as reasons for their engagement. Non-engaged participants experienced individual factors, such as low functional health status, that prohibited their engagement.

Heart failure is often associated with social isolation, fear and loss of control (27). Engaged participants described a principal benefit of the peer relationships they developed as being a feeling of being understood by somebody else that led to increased confidence, comfort, and reassurance. The engaged participants described a renewed motivation to take on the SM tasks necessary to enhance functioning and slow the progression of HF when they felt supported and inspired by their peers. In the context of this HF-specific peer support, they

compared themselves to one another and made good use of the comparisons, frequently learning best from another HF patient how to find solutions to HF SM challenges. These findings support the growing consensus in the HF literature about the value of support from others who share experiences with the same illness (28, 29, 30).

Lack of knowledge has been associated with less physical activity, weight monitoring, dietary adherence, and more frequent hospitalizations and death for patients with HF (31, 32). Failures in SM have been associated with low patient understanding of the reasons and methods for effective SM (33, 34, 35). Despite careful development, the educational materials offered to the participants in this study were generally not perceived to be of great value. It is possible that the mode of delivery of education materials through print materials and a DVD was not appropriate for this audience. Information provided by the NP in the group setting was more meaningful to participants than information presented in the written or video format. This finding supports the importance of in-person communication by the HF patient's healthcare team (8). Yet, when it came to health care information, peers were repeatedly described as the most helpful source of information. The group classes provided a means to lessen the feeling of social isolation experienced in patients with HF and provided a forum in which participants could exchange information they found to be useful with others. Again, our findings are similar to those of others who have documented the value of patients with HF learning from one another (7, 28, 29).

The Buddy Study program aimed to provide participants with peer support, but in a number of cases participants did not engage at all with their assigned peers, often due to difficulties with the relationship or poor functional status. Yet, there were also instances of successful partnerships. Most participants that developed a successful pairing said that their personalities just 'clicked' and that they could not say why they really got along with their peer. Because the peer relationship can be so supportive when it works well, learning which factors are associated with effective partnerships is an especially important area for future investigation.

Patients with HF often struggle with depression (36). Depression related to their health condition appeared to be a significant barrier to engagement in the peer support program. At times, some would seek out contact from others while others would avoid social interaction all together. It would be helpful to understand to what degree their depression affected their engagement. And, determining if participants should be matched based on level of depression and what matches lead to more engagement could be areas for future research. Attendance at the classes was unpredictable and affected the experience of those who attended. As also noted by other researchers, the variability of HF patients' symptoms, sometimes on a daily basis, requires development of flexible approaches to SM (37). Similar flexibility in the design of intervention programs will be important to enhance effectiveness.

This study had a number of limitations. First, participants who engaged in the program were also more likely to engage in the qualitative interviews. Therefore, there may be important perspectives that would be helpful to consider in designing programs that are missing from this investigation. Second, there is some evidence that more similar peers are more likely to have mutually supportive peer relationships. However, quantitative investigation of this

variable was not undertaken in this study, and the similarities between peers did not emerge as a prominent theme in the interviews. What did emerge was that the participants did actively compare themselves to one another and this often had a powerful impact. Peer support initiatives may thus be especially effective among participants who can identify with each other, be it through shared experiences, cultural and ethnic backgrounds, or religious faith. In this study, all patients had been hospitalized for HF and matching patients of similar ages and the same gender was attempted. However, peer partners were assigned by the research team, and empathy with or commitment to the peer partner may have been low. Matching participants by HF severity could be effective to allow peer partners to share common experiences and challenges. It is possible that different themes would have emerged in a study of a reciprocal peer support program in which patients were allowed to choose peer partners or were matched on more shared characteristics. Identifying methods to engage this population in behavior change and social support interventions, as well as identifying subgroups of HF populations who are candidates for peer support and other behavioral interventions, remains a high priority. Finally, although self-efficacy is an important factor in HF SM, it did not emerge as a key theme in the interviews with participants. It could be an area for further research.

In sum, participants engaged in a reciprocal peer support program when they made successful connections with their peer partners. Participants experienced the comfort of hearing others describe feelings and experiences that they shared. Additionally, they received valuable information and practical tips offered by others facing similar HF challenges. Illness, depression, and ineffective pairings were described as barriers to participation. Future studies should therefore examine the qualities and factors that lead to successful peer partnerships. Furthermore, other types of structured HF self-management programs should include HF-specific peer support components to allow participants the opportunity to bond and share with others.

Abbreviation List

HF	Heart Failure
SM	self-management
NP	nurse practitioner
IVR	interactive voice response

Appendix 1: Interview questions

1. How have you been feeling during the past six months?
2. Can you talk to me about what it was like when you were first diagnosed with heart failure? Where are you at with it now?
3. Can you talk to me about your self-care behaviors? Have they stayed the same throughout the study? Improved? Worsened? Are you doing the same self-care behaviors, added any, or stopped doing some?

4. Why did you join the Buddy Study?
5. What was your opinion of the Buddy Study?
6. The Buddy Study had several components. One was buddy phone calls. What was your experience like with the phone calls?
7. Another aspect of the program was the group visits. Please talk to me about your experiences with the group visits.
8. There were also other Buddy Study components: DVD, workbook, private talks with the researchers, question and answer time with the nurse. Of these, what, if anything, did you find helpful?
9. What, if anything, made it hard for you to participate in the Buddy Study?
10. What, if anything, would you change about the Buddy Study?
11. Finally, I'd like to ask you about future plans for programs like this. Please describe the best program that you think would help people cope with heart failure.

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TABLE 1

Participants Characteristics at Baseline*

CHARACTERISTIC	ENGAGED (n=18) n (%) or Mean (SD)	NOT- ENGAGED (n=10) n (%) or Mean (SD)	TOTAL (n=28) n (%) or Mean (SD)	Between- Sample Difference P Value	Total (n=266) n (%) or Mean (SD)
Age, y	75.56 ± 10.85	66.7 ± 11.61	72.39 ± 11.73	.50	69.1 (12.1%)
Women	15 (83.3%)	5 (50.0%)	20 (71.4%)	.02	137 (51.5%)
Race or ethnicity				.99	
White	14 (77.8%)	7 (70.0%)	21 (75.0%)		197 (74.1%)
Black	4 (22.2%)	2 (20.0%)	6 (21.4%)		58 (21.8%)
Other	0 (0.0%)	1 (10.0%)	1 (3.6%)		11 (4.1%)
Education				.58	
High School graduate or less	6 (33.3%)	4 (40.0%)	10 (35.7%)		115 (43.2%)
Some college, technical, or vocational	8 (44.4%)	4 (40.0%)	12 (42.9%)		95 (35.7%)
4-year college or more	4 (22.3%)	2 (20.0%)	6 (21.4%)		55 (20.7%)
Annual Income				.47	
\$19,000	4 (30.8%)	1 (10.0%)	5 (21.7%)		60 (25.5%)
\$20,000 to \$39,000	6 (46.2%)	4 (40.0%)	10 (43.4%)		105 (44.7%)
\$40,000 or more	3 (23.1%)	5 (50.0%)	8 (34.7%)		70 (29.8%)
Household size				.94	
Lives alone	7 (38.9%)	2 (20.0%)	9 (32.1%)		66 (24.8%)
Lives with others	11 (61.1%)	8 (80.0%)	19 (67.9%)		200 (75.2%)
Self-rated general health status				.91	
Very good or better	7 (38.9%)	4 (40.0%)	11 (39.3%)		53 (19.9%)
Good	6 (33.3%)	4 (40.0%)	10 (35.7%)		86 (32.3%)
Fair	4 (22.2%)	1 (10.0%)	5 (17.9%)		81 (30.5%)
Poor	1 (5.5%)	1 (10.0%)	2 (7.1%)		46 (17.3%)

* Baseline characteristics are the results from surveys taken before the first group meeting/enrollment. *t*-tests were used to compute differences between all participants and interviewed participants