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Impact of COVID-19 on heart failure self-care: A qualitative study

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Abstract

Background: Difficulties in coping with and self-managing heart failure is well-known. The COVID-19 pandemic may further complicate self-care practices associated with heart failure.

Objective: To understand COVID-19's impact on HF self-care, as well as related coping adaptations that may blunt the impact of COVID-19 on HF health outcomes.

Methods: A qualitative study employing phone interviews, guided by the framework of vulnerability analysis for sustainability, was used to explore HF self-care among older adults in central Texas during the late Spring of 2020. Qualitative data was analyzed using directed content analysis.

Results: Seventeen older adults with HF participated (mean age 68 years, SD 9.1; 62% female; 68% White; 40% below poverty line; 35% from rural areas). Overall, the COVID-19 pandemic had an adverse impact on the HF self-care behavior of physical activity. Themes of social isolation, financial concerns and disruptions in access to medications, and food indicated exposure, rural residence and source of income increased sensitivity, while adaptations by healthcare system, health-promoting activities, socializing via technology, and spiritual connections increased resilience to the COVID-19 pandemic.

Conclusions: The study's findings have implications for identifying vulnerabilities in sustaining HF self-care by older adults and empowering older adults with coping strategies to improve overall satisfaction with care and quality of life.

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Background and Significance

The challenges that individuals encounter in self-care of heart failure (HF) contribute to poor quality of life and high healthcare utilization.[1,2] Maintaining HF self-care requires the individual to be adept in a wide range of skills,[2] which is difficult even in normal times; but it can become precariously difficult during a pandemic such as that caused by COVID-19. In prior studies, higher levels of stress and perceptions of harm or loss which may be more prevalent during a pandemic were associated with negative coping styles and adverse health and well-being outcomes.[3] On the other hand, positive coping strategies such as reinterpreting difficulties and adjusting to them, drawing on values and beliefs to identify positive meaning[4] and receiving support during seeking of information and engaging others can sustain self-care behaviors during a pandemic.[5,6]

As of October 31, 2020, more than 9 million Americans[7] had been diagnosed with COVID-19, with a mortality rate of 2.5%.[8] Older adults with HF have the greatest risk for COVID-19 infection and mortality.[9,10] To protect older adults in the U.S. and around the world, social distancing, self-isolation at home, and hygienic practices have been proposed. Prior to the pandemic, however, the impact of such recommendations, which further exacerbate social isolation, was consistently linked with readmissions in HF patients.[11] In the context of a pandemic, the impact of such recommendations for HF self-care behaviors is unknown. The coping adaptations of older adults with HF to achieve a balance between chronic disease self-care and protective behaviors to avoid COVID-19 infection is also unknown.

Conditions such as increased global travel and commerce, which among others have contributed to the rapid worldwide spread of COVID-19, may continue to spawn future pandemics.[12] Knowledge about self-care needs and behaviors at the time of a pandemic can enable policy makers and healthcare providers to develop more informed strategies to support older adults with cardiovascular diseases in preparation for future pandemics. This study examines the impact of the COVID-19 pandemic on HF self-care behaviors, as well as coping adaptations in HF self-care that may blunt the impact of COVID-19 on HF health outcomes.

Methods

During April and May 2020, English-speaking individuals diagnosed with any type of HF, who had participated in prior studies and had consented to be contacted for future studies were recruited using convenience sampling. In prior studies, participants were recruited from in-patient and out-patient cardiac centers. Since HF is a debilitating condition, our rationale was that people with HF who are 55–64 years have poorer functional and quality of life status compared to adults 55–64 years without heart failure[13] and are more similar with typical older adults who are 65 years or older. Hence, we included adults 55 years or older in our study on older adults with heart failure. Data collection took place during shelter-in-place and phased reopening periods in the state of Texas. Each participant was mailed a $25 gift card in appreciation for contributing to the study. The study was approved by the Institutional Review Board of The University of Texas - Austin.

Theoretical Framework

As self-care is highly influenced by an individual's contextual factors,[14] Turner et al.'s[15] framework for vulnerability was adapted to guide this study. The framework implies that vulnerability is a function of exposure, sensitivity, and resilience (Figure 1). In the present study, exposure is represented by the contact between the individual with HF and one or more stressors associated with the COVID-19 pandemic. The contextual conditions associated with the interaction of individuals with HF with their environment determines the individuals' sensitivity to stressors associated with the COVID-19 pandemic towards self-care behaviors and health outcomes. The human-environmental contextual conditions would encompass geographical, sociocultural, physiological, psychological, economic and healthcare infrastructural factors associated with a person with HF. Resilience encompasses coping of the HF individual to the COVID-19 pandemic, impact on HF self-care behaviors, and health outcomes and adaptive capacity of the community and healthcare system in adjusting to support the individual during COVID-19. Stronger adaptive capacity gives the HF individual greater resilience in preparing and planning for, absorbing, recovering from, and more successfully adapting to stressors related to the COVID-19 pandemic.[15] Application of this framework in our study allowed us to demonstrate the vulnerability of older individuals with HF to COVID-19-related stressors. In addition, this framework allowed elucidation of individual and systemic level adaptations that are needed to bolster coping processes for self-care employed by older adults with HF during pandemic conditions.

Data Collection

The beginning of the COVID-19 pandemic was defined as the beginning of the first shelter-in-place orders at a central Texas city. Participants completed an online demographic survey that included questions on health status, engagement in exercise and weight monitoring behaviors during COVID-19 pandemic, screening for depression as measured by the PHQ-2[16] and loneliness as measured by a single item from the Center for Epidemiologic Studies Depression Scale (CES-D).[17] In addition, participants completed the 22-item validated Self-Care of Heart Failure Index (SCHFI)[18], which measures HF self-care on three separate scales: Self-Care Maintenance, Self-Care Management, and Self-Care Confidence (efficacy). Scores on each scale range from 0 to 100, with scores equal to 70 or more reflecting better self-care.[18]

The qualitative interviews were conducted by the first author (KR), using a semi-structured interview guide. Recruitment of participants continued until data saturation was reached, when no new codes arose in analysis of iterative and open-ended questioning. The interviews were focused as follows:

1. Describe your typical heart failure self-care routine.
2. Describe your understanding of the COVID-19 pandemic.
3. Describe how the COVID-19 pandemic has impacted your daily life routine and quality of life.

4. Describe how the COVID-19 pandemic has impacted your HF self-care behaviors.

5. What resources would help you to support your health and self-care needs during the COVID-19 pandemic?

Data Analysis

Demographic data were analyzed using Excel to determine measures of central tendency and the distribution of values for the sample. A directed approach was used in qualitative content analysis of the interview data,[19] with predetermined coding categories derived from the adapted conceptual framework in Figure 1. The Rev transcription application (https://www.rev.com) was used for recording and transcribing interviews. Two authors (ASD and CA) used Microsoft Word and Excel to code and organize the interview data into categories. The first author (KR) cross-checked the coded transcripts to ensure consistency of interpretation and summarized the categories from coding reports within themes. Interrater reliability for the qualitative transcripts was 92% (Agreed number of codes / total derived codes). Discrepancies in assigning categories by the two reviewers were discussed until consensus was achieved.

Results

A total of 43 individuals with HF were contacted by phone for the study of which 4 declined due to lack of time or interest, 20 were unable to be reached, and 19 consented to participate. Seventeen participants participated in the qualitative interviews, representing the number at which data saturation was reached. The interviews lasted for 20–35 minutes.

The mean age of the participants was 68 years (SD 9.1), 62% were female, and 68% were White (Table 1). Participants' average SCHFI Self-Care Maintenance score was 67 (SD 15) (Cronbach's alpha = 0.59), representing slightly less than adequate self-care (= 70), and the average Self-Care Confidence score was 72 (SD 22) (Cronbach's alpha = 0.94), indicating adequate self-efficacy. Items with the lowest average self-maintenance scores were related to physical activity and requesting low-salt diet outside their homes. On the Self-Care Management scale, only 25% (4 of 16) reported HF-related symptoms during the past month.

Exposure to COVID-19 Pandemic and Related Stressors

None of the participants reported being exposed to the COVID-19 virus. All 17 participants were aware of the life-threatening risks associated with COVID-19 and reported that they followed social distancing to protect themselves. Participants were also concerned that they might have to be careful about the virus for a long time or until a vaccine or cure might be available. According to participant13 (68y/f/African-American), "They don't have a vaccine and they don't have a cure, so this is a disease that's gone global...This is like a black cloud around the world." Four participants were concerned about the state's re-opening of the economy. According to participant8 (67y/f/White), "I don't care if they open it up 100%, I'm still not going to go in because I don't think they should be open." Four participants expressed concern about the lack of accessible testing for COVID-19.

According to participant9 (78y/f/African-American), “I would like for all of the residents here at the property where I live to be tested, but they cannot be tested without symptoms.”

All participants reported using masks when outside their homes, sanitizing frequently used surfaces or handles, and wiping down grocery bags thoroughly. Participants obtained their masks through family members (8), healthcare providers (2), prior stock (2), buying them online (2), or stitching the masks themselves (2). Only one participant did not have a mask. One participant sought information on substitutes for filters that could be used in masks with pockets: “Some of the patterns have a pocket to put the filter in, but no one tells you, what are these filters? You can order them online, but what are they?” (participant8; 67y/f/White). Three participants were concerned about relaxed socialization among family members or expressed anxiety about others not wearing masks. According to participant2 (77y/m/White), “other people aren’t as protective, or as knowledgeable and considering [toward] other people, their health, either mine or theirs. They’re not wearing masks, do not have any gloves or anything. As long as the virus is an epidemic like it is, I would like to see everybody participate in the same.”

The necessity of social distancing resulting from fear of being infected by COVID-19 significantly impacted participants’ life routines and socialization. Social distancing measures included ceasing in-person meetings with friends, reducing the number of family members who could visit, and cutting down on hobbies such as woodwork or singing in choirs. Although participants understood the necessity of these changes, majority (70%) still missed in-person interactions: “although we are able to see our (church) service by Facebook and conference call, we don’t get to see or do social activity each other. We don’t get to laugh with each other in person...We miss each other very much” (participant9; 78y/f/African-American).

Six participants reported financial setbacks through loss of income because of job loss, delayed pay, or lower business volume. According to participant3 (73y/m/White), “my income is basically gone to zero; anything would help. It wasn’t a big business... we were probably averaging $5,000 or $6,000 a month...And that’s gone...to zero.” Another, because of loss of job by family members, had to increase her hours at work as a home health aide, which placed her at greater risk of exposure. Two others began receiving financial support from their children. At the time of data collection, none of these six participants reported having received the stimulus check from the U.S. government. Participant4 (58y/f/African-American) remarked on the adverse financial impact of increased food prices: “The food is so much more expensive...We spent $200 when we look at our basket and say, what exactly did we get.”

Sensitivity: Human-Environment conditions affecting HF individuals’ response

The contextual condition of rural residence notably influenced participants’ response to COVID-19 stressors. The rural–urban dichotomy in healthcare access was clearly present when it came to medications. All six participants who lived in rural areas reported issues in obtaining medications: long lines at pharmacies, inability to set-up mail-order medication delivery, or missing medication packages delivered by a mail. According to #17 (67y/f/White), who lived in a rural town, “There were long lines at the pharmacies. It was just

like, I don't know, like chaos going on. Able to get medications 2 days later." Participant13 (68y/f/African-American) who lived in a rural area, reported issues with obtaining healthy food through food donation from food banks: "In the box everything was like spaghetti and meatballs, pinto beans stuff that I don't eat. No fresh vegetables or food (fresh cilantro, bell peppers, oranges, nectarines)." A remarkable finding was that all the participants in rural areas reported issues in finding food regardless of their income level, whereas only one-third of participants in urban areas reported any issues. According to participant17 (67y/f/White), "I had to go to the grocery store, there was lines and lines and lines. I was having to get up early to get in a line. Then my daughter cut back on her hours at work so that she could get everything at the grocery store, and she still struggled to find things." Participants who had received food from other sources before the pandemic also reported changes. According to participant9 (78y/f/African-American), "the Meals on Wheels used to provide hot food but now they deliver meals for 2 weeks in box and it's like canned meat."

Majority of the participants did not report depression and loneliness (Table 1). Few participants (30%) who were already sensitized to lower levels of socialization were not bothered by social distancing: "I'm an only child. I've been a widow for over 25 years. I'm accustomed to being alone. So being by myself is no problem" (participant13; 89y/f/White).

Source of income was another factor that influenced being affected by the pandemic's economic fallout. Participants with stable jobs or received fixed income did not anticipate significant changes to their incomes unless the economy were to collapse. As a participant15 (89y/f/White) said, "Now if we end up in an [economic] depression, I'm in big trouble because my main monthly income is from state retirement."

The COVID-19 pandemic resulted in cancellations of healthcare services such as in-person scheduled appointments, routine procedures associated with HF or co-morbid conditions (e.g., obtaining B12 shots or blood work), and cardiac rehabilitation. However, no participant reported any issue in contacting or communicating with their healthcare providers. According to participant8 (67y/f/White), "They've been there for me just like they were before COVID, answering within 24 hours, no delays, so forth." Participants were also willing to visit their providers or use emergency services in-person if necessary; they trusted levels of safety at their providers' settings. Only one participant reported discomfort about visiting healthcare providers, because he was unable to obtain a mask.

Resilience

Coping Responses by HF Individuals—Participants reported multiple coping strategies to sustain themselves. Coping strategies to maintain or increase exercise included engaging in hobbies such as gardening (2), walking around the block (5), or online exercise programs conducted by senior services such as Family Eldercare. Six participants reported learning to use technologies such as Zoom or FaceTime to stay in touch with friends and family and hold virtual dinners. As participant7 (75y/f/White) said, "Every couple of weeks we have a Zoom dinner. We have the laptop set up where we can all be seeing each other and eat the same type of meal, basically." Participants also reported employing several ways to cope with the pandemic, including enrollment in online classes (2), reading much more (2),

listening to music (1), and watching much more television (4). One participant engaged in socially distanced social services by stitching masks all day.

Four participants reported that they relied on faith and had gained resilience through coping with prior severe health crises. Participant8 (67y/f/White): “I’ve been through a lot and I think I’ve kept a good frame of mind through it all. The virus is claiming a lot of lives and if it claims me, I mean I’m doing everything to prevent it and if it happens it happens. I will fight to the end if I do get it. I’ve already died several times over and been revived.”

Impact (Changes in Self-Care Behaviors)—Thirteen participants reported decreases in their exercise in comparison with pre-COVID-19 days. Lack of motivation to exercise was attributed to being home all day without a schedule to follow as well as the need to avoid crowds while walking outside. According to participant14 (57y/f/African-American), “It was much better when I was working, at my school, [I] walk a lot. But now that I’m at home all day with teaching through virtual learning, sometimes I’ve been lazy about getting on my treadmill. No trigger for me to exercise.” Closure of cardiac rehabilitation centers, parks or gyms was another reason for reduced exercise. According to participant12 (57y/m/White), “They shut down the rehab center. Supposed to be walking, do not see the purpose, more like a chore. Gained 15 pounds since the lockdown. I lost the health that I had gained by going to the cardiac rehab. It feels like all that rehab that I did is now wasted.”

The COVID-19 pandemic adversely impacted participants’ ability to eat healthy food. Ten participants reported problems in finding food items low in sodium. According to participant6 (65y/m/American Indian), “I was following a low to no salt diet for a while and then it got to a point where, you order stuff online. They don’t have any low salt things out there to order, and if they do they’re out of stock.” Participants reported changes in dietary patterns—skipping breakfasts or losing motivation for home cooking. One participant’s concern about being exposed to the virus during grocery shopping triggered poorer diet habits thus: “I’ve been eating what I want when I want, and I’m not paying attention whatsoever to my diet. Don’t know why, but I’ve fallen back into a rut of getting Uber Eats or DoorDash or whatever. It’s just easier for me to call those places and have dinner or lunch brought to me instead of me going out to shop”.

Adaptive Capacity—Adaptive capacity of the community and healthcare sub-systems were demonstrated in the adjustments made by the systems to better support HF older adults during the COVID19 pandemic. Adaptive capacity to obtain groceries in the urban setting included delivery for seniors by Favor, an affiliate of the HEB grocery chain in Texas (https://favordelivery.com), which can be accessed either online or over the phone via a Senior Support Line. According to participant8 (67y/f/White), “I have not been to the groceries in person in months; I ordered through the city’s senior line and they use Favor.” Five participants who did not report any issues in obtaining food reported that family members helped them with shopping for groceries. Other participants relied on the community to help them cope with food shortages during the crisis. Participant13 (68y/f/African-American) was grateful to her neighborhood community for looking out for her. However, she would have also benefitted by receiving other essential items such as soap or detergent: “people that volunteer at different agencies and the food bank and the community

—they’re stepping up, these folks are getting fed, there[‘s] no argument about that, but you don’t have the things like dish washing liquid, laundry powder, detergent. I’m out of those things so I’m not washing clothes.” In addition, participant4 (58y/f/African-American) started searching for food banks just to be prepared in the eventuality that she might need assistance with buying food: “I’ve just been looking online and looking for various food banks and I have identified some of them as backup...I have not taken advantage of them at this point, but I may have a need for them.” Another participant reported on the value of budgeting lessons provided by organizations such as Family Eldercare, which helped her cope with the pandemic’s financial setbacks. One participant reported easy access to a housing authority hotline that could be used to call if one felt depressed.

Participants reported that the healthcare system helped them cope by exposing them to new ways to receive healthcare services, such as through telehealth or phone check-ins. According to participant1 (70y/f/White), “I’ve been doing some telemed appointments...it’s convenient. I don’t hold anything back that I would not hold back so it’s been okay... in fact I probably had more time with the doctor than before in person.” However, one participant preferred in-person routine visits: “I would rather see my doctor in person, the human contact. I really like my doctor; he has a great bedside manner. The nurses there, they feel comfortable. And I just feel like I’m really getting seen in person.” Another participant (#9; 78y/f/African-American) reported that the focus of the virtual visits during the first few weeks of the pandemic was on management versus treatment: “They’re not treating me on the phone, they’re telling me what to do for that period of time, and if it [health issue] doesn’t get any better they will figure out another way. But it [health issue] got better eventually.” Other adaptive strategies utilized by the healthcare system included social worker support services to help deliver medications from the pharmacy or to obtain discounts for high-priced medications. For one participant who lived in an urban area, pharmacists refilled for a longer duration to avoid the participant’s medication-related trips during the pandemic.

Discussion

This paper describes the early impact of the COVID-19 pandemic on HF self-care among older adults living in the community. The study was conducted during the initial phases of the COVID-19 lockdown in central Texas, that included shelter-in-place orders followed by reopening of the economy. As one would expect in a pandemic that includes several months of shelter-in-place orders, priorities and routines of self-care were set aside by some to prioritize survival and manage financial, social, and emotional burdens.

Components of the theoretical framework for vulnerability analysis guided our understanding of factors related to the COVID-19 pandemic’s impact on HF self-care. First, with respect to exposure in relation to COVID-19’s impact and stressors, none of the 17 participants were exposed to the coronavirus at the time of the study’s interviews. However, participants experienced significant life disturbances with heightened fear, given their chronic health conditions. Some participants reported deep social isolation; lack of access to supplies, medications, and food (including a mask for one participant); financial

concerns from not having received government aid and disruptions in healthcare access at the time of the interviews.

With respect to sensitivity, participants' vulnerability during the COVID-19 pandemic was evident in their sociodemographic characteristics of older age, lower socioeconomic status with self-reported high poverty rates (40%), and rural living. In addition, all were patients with HF, placing them among the highest risk for complications related to COVID-19.[20] One third were from rural communities, which across the U.S. have less access to healthcare, food, and other staple goods for sanitation.[21,22] These disparities were confirmed by experiences that some participants shared, such as searching for food banks due to concerns about resources for obtaining food. Although minority race has been found to significantly impact exposure and outcomes related to COVID-19,[23] in our study race did not appear to influence the impact of the COVID-19 pandemic on the participants or their responses to it.

The participants' insights were consistent with potential challenges forecasted by experts in geriatric care regarding the pandemic.[24,25] Although we were only a few months into the announcement of a worldwide pandemic at the time of submitting this manuscript, staggering numbers of unemployment were already reported across the U.S.[26,27] Unemployment coupled with existing poverty often leads to loneliness and isolation, which are associated with increased risks for cardiovascular morbidity and mortality.[28,29] Participants experienced an adverse impact on HF self-care behaviors related to physical activity and dietary behaviors. Poor dietary intake with increased processed foods and decreased physical activity are associated with HF exacerbations,[20] as experienced by a minority of our participants.

Finally, reflecting resilience, coping and adaptive capacity were expressed as managing high emotional and mental stress through health-promoting activities, socializing via technology, and spiritual connections. Many shared that they learned how to use technology as a coping strategy to mitigate loneliness. There was overall satisfaction in communication with providers as an alternative to in-person visits. The positive coping behaviors could have contributed to the low incidence of HF-related symptoms during the initial two months of the pandemic.

Numerous clinical implications related to vulnerabilities in HF self-care were identified. A multifaceted, proactive approach will be critical to address the unique needs and challenges that patients with HF may face. One major implication is related to integration of technology for HF self-care (e.g., telemedicine, mobile apps for self-care) as well as assessment of access to technology via Wifi and the internet. Technology is essential, and it should be easily accessible to promote self-monitoring of HF for weight, blood pressure, and heart rate.[30–32] Access to technology for digital temperatures can easily be implemented to assess risk for COVID-19 or other infection. Activity trackers might deter sedentary behavior, particularly if patients report physical inactivity or are eligible to attend cardiac rehabilitation.[33–35] Such technologies must be streamlined to communicate important clinical data to health care providers. Clinicians should continue to offer virtual (audio/video) visit options for vulnerable patients in lieu of in-person visits, with the option of video visits for a more personal encounter.[24,29]

Other clinical implications include asking screening questions prior to or during in-person or virtual clinical visits that incorporate physical activity, changes in food stability, alcohol use, psychological health, and caregiver support.[24] Regular education on triggers of HF exacerbation and reinforcement of messages on indications for seeking medical evaluation are important. Clinicians should also assess emotional and mental health and offer resources for mental health services and social support. Frequent communication and check-ins were appreciated by the participants in this study, so further exploration of how to sustain these activities with the assistance of student volunteers or other staff should be considered.

Additional implications for social services and policy changes include the following. Participants frequently requested information on COVID-19 testing, suggesting that improved communication is necessary for COVID-19 management. Other frequently requested information was related to food sources such as food banks. Additional research on preferred methods of communication with isolated older adults is needed, although many patients may be well-connected through frequent communication via their social networks. Policy changes must also support clinical implications. Rapid implementation of telehealth and reimbursement for it should be examined closely to build on the capabilities that technology offers.[29]

Limitations and Strengths

Although our data collection and analysis strategy guided by the conceptual framework for vulnerability analysis helped us achieve data saturation for themes, this analysis was based on a single data source of a convenience sample of older adults with HF. The results and subsequent conclusions therefore cannot be generalized to other situations or HF older adult populations without caution. One major strength was that we conducted the study within two months of the implementation of pandemic-related restrictions to reduce patients' errors in recalling their experiences. As the pandemic persists, prolonged engagement with research subjects could apprise on the lingering impact of the pandemic on HF self-care.

Conclusion

This study presents the unique perspectives of older adults living in the community regarding HF self-care during the COVID-19 pandemic. The study's findings can help guide nurses and other cardiac providers to identify vulnerabilities in sustained HF self-care behaviors among older adults. These findings have important implications for empowering older adults with coping strategies to initiate or maintain engagement in HF self-care and improve overall satisfaction with care.

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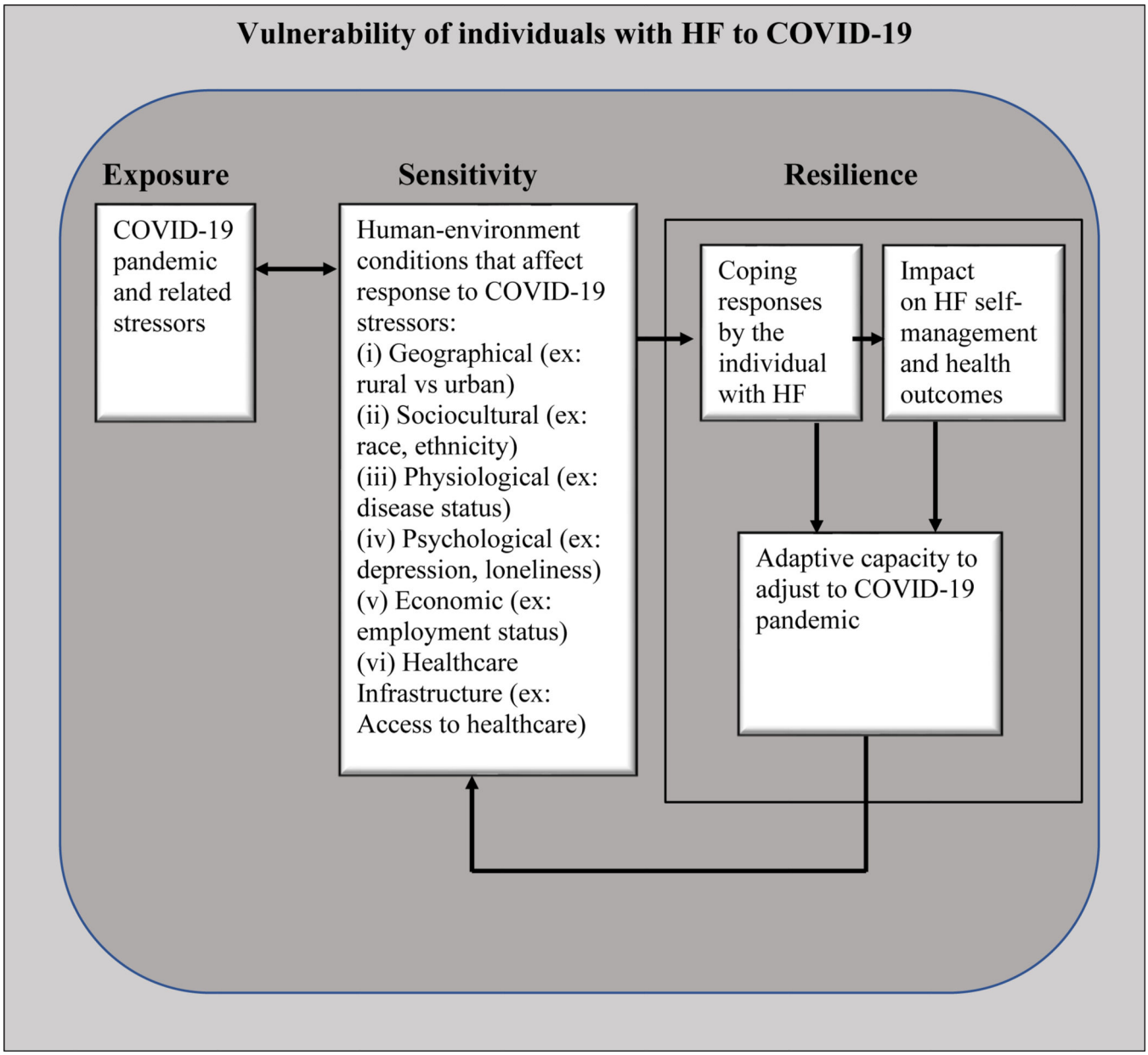

Figure 1:
Vulnerability framework of human health in the context of the COVID-19 pandemic

Table 1.

Participants' characteristics (N = 16)

Age (years, *M*)	68	
Sex (*n*, %)		
Male	6	38
Female	10	62
Ethnicity (*n*, %)		
Hispanic or Latino	3	19
Race (*n*, %)		
American Indian	1	6
African American	5	31
White	10	63
Highest Education Level (*n*, %)		
High school graduate, diploma or the equivalent (for example: GED)	1	6
Some college credit, no degree	8	50
Bachelor's degree or higher	7	44
Employment right before COVID19 crisis (*n*, %)		
Working for pay	3	19
Unemployed and looking for a job	1	6
Retired	10	63
Disabled	2	13
Number of people currently living in one's home, excluding oneself (*n*, %)		
0	3	19
1–3	12	75
>3	1	6
Relationship of the people in one's home (multiple selections possible, *n*)		
Partner/spouse	7	
Parent(s)	2	
Children	3	
Grandchildren	2	
Other relatives	2	
Unrelated person	2	
Health insurance coverage (multiple selections possible, *n*)		
Military	1	
Employer-sponsored	2	
Individual	5	
Medicare	10	
Medicaid	4	
Other	9	
None	0	
Annual pre-tax income (*n*, %)		
<$10,000	1	7

$10,000–$29,999	5	33
$30,000–$49,999	0	0
$50,000–$69,999	5	33
$70,000 or above	4	27
Missing	1	7
Number of hospitalizations for HF-related reasons in the past 12 months (*n*, %)		
0	6	40
1 or 2	8	53
>2	1	7
Missing	1	7
Diagnosed health conditions (multiple selections possible, *n*)		
Cardiovascular	16	
Arthritis	6	
Diabetes	3	
Kidney problems	5	
Cancer	6	
Emotional or mental health problems such as depression	3	
Respiratory conditions	5	
Immune disorders	2	
Length of HF diagnosis (*n*, %)		
Less than a year	2	14
1–4 years	5	36
5–9 years	1	7
10+ years	6	43
Missing	2	14
SCHFI Self-care Maintenance score (*M*±*SD*)	67	15
SCHFI Self-care Confidence score (*M*±*SD*)	72	22
Frequency of weighing oneself per week in the past 2 weeks (*N*, %)		
0 days	3	19
1 to 2 days	0	0
3 to 4 days	5	31
5 to 6 days	0	0
Daily	8	50
In the past 2 weeks, number of days in a week with exercise (e.g., increased heart rate, breathing, etc.) for at least 30 minutes (*n*, %)		
Never	4	25
1 to 2 days	8	50
3 to 4 days	3	19
5 to 6 days	0	0
Daily	1	6
Patient Health Questionnaire – 2 scores (n, %)		
< 3	13	81
> 3	3	19
In the past 2 weeks, loneliness (*n*, %)		

Not lonely at all	10	63
Slightly lonely	4	25
Moderately lonely	1	6
Very lonely	0	0
Extremely lonely	1	6