10-23-2025

Self-Management Experiences of Heart Failure Patients Who Received Telehealth Services During the COVID-19 Pandemic

Christie Devine
Walden University

<u>Walden University</u>

College of Nursing

This is to certify that the doctoral dissertation by

Christie Devine

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Mary Martin, Committee Chairperson, Nursing Faculty
Dr. Elizabeth Diener, Committee Member, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2025

Abstract

Self-Management Experiences of Heart Failure Patients Who Received Telehealth

Services During the COVID-19 Pandemic

by

Christie Devine

MS, Walden University, 2015

BS, Kaplan University, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Nursing

Walden University

November 2025

Abstract

The COVID-19 pandemic increased the utilization of telehealth in managing chronic conditions such as heart failure. Existing research has primarily focused on patient experiences with specific telehealth platforms or settings, limiting generalizability within the diverse United States healthcare system. The purpose of this qualitative study, guided by the health promotion model, was to describe patient experiences with self-management of heart failure while receiving medical care through any type of telehealth service (e.g., telephone, video calls, remote monitoring) in the United States. Twenty-two participants were interviewed who met the criteria of having a diagnosis of heart failure and using telehealth since the onset of the pandemic. Analysis revealed four primary themes: (a) getting a heart failure diagnosis, (b) managing newly diagnosed heart failure during the pandemic, (c) experiences with telehealth, and (d) access issues. Participants reported difficulties in accessing in-person care and variability in symptom management, yet generally viewed telehealth as convenient, cost-effective, and accessible, with some technology-related barriers noted. Recommendations for future research should include recruiting participants of both genders and those who are not newly diagnosed with heart failure. The results of this study highlight the need for inclusive and adaptable telehealth strategies. Its findings have significant implications for health policy, can help shape more responsive telehealth interventions, influence health policy decisions, and support future longitudinal research on post-pandemic healthcare delivery models which affect positive social change.

Self-Management Experiences of Heart Failure Patients Who Received Telehealth Services During the COVID-19 Pandemic

by

Christie Devine

MA, Walden University, 2015

BS, Kaplan University, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Nursing

Walden University

November 2025

Dedication

This study is dedicated to my children Caitlin, Matthew, Dylan, Alyssa, and Andrew. Your presence in my life has helped shape me into a better person and a more dedicated scholar. Thank you for your sacrifices and for always reminding me of what truly matters.

Acknowledgments

First and foremost, I would like to express my deepest gratitude to my committee chair, Dr. Mary Martin, for her unwavering guidance, support, and insight throughout the course of this research. Her expertise, patience, and encouragement were invaluable, and this dissertation would not have been possible without her mentorship.

I am also grateful to the past and present members of my committee—Dr. Elizabeth Diener, Dr. Maria Ojeda, and Dr. Cynthia Fletcher—for their thoughtful feedback, constructive criticism, and support, which helped improve the quality and clarity of this work.

Special thanks go to my colleagues and fellow graduate students at Walden University, especially Brenda Lee Smith. Our many discussions, brainstorming sessions, and shared challenges made this journey more enriching and enjoyable.

To my friends, thank you for being a source of encouragement and laughter through the highs and lows of this process. Your belief in me kept me going.

Finally, to my family—especially my mother, Kathleen; my brothers, Jason and Dan; and, most especially, to the love of my life, Mike—thank you for your unconditional love, patience, and sacrifices. Your support has been the foundation of all my achievements, and I dedicate this work to you.

Table of Contents

Chapter 1: Introduction to the Study

Introduction

The research problem I addressed in this qualitative study was the lack of information about the self-management experiences of patients with heart failure who receive medical care via telehealth in the United States. This study promotes social change by providing a foundation for identifying which telehealth services or features support effective care and which require improvement, enabling adjustments that enhance patient satisfaction and support better management of chronic conditions. The goal is to improve patients' quality of life by optimizing their experience with telehealth. In this chapter, I present an overview of the study, including the problem statement, research purpose and objectives, research question, theoretical framework, scope, assumptions, and nature of the study.

Background

Evolving from the invention of the telephone, personal pager devices, and later interactive television, telehealth has a long-standing presence in healthcare (Baker, 2023). Today, telehealth services include telephone calls, video conferencing, smartphone applications, and remote patient monitoring (Health Resources and Services Administration, 2022). Recent studies examine the use of telehealth in managing chronic health conditions, including heart failure, with patients reporting both positive and negative experiences, resulting in mixed findings (Kerr et al., 2020; Wali et al., 2021; Ware et al., 2021). All reviewed studies focus on specific sites and a single telehealth system—the Medley smartphone application.

Due to the diverse patient population and the fragmented nature of the healthcare system in the United States, further studies are needed within the United States to determine whether there is consistency with prior findings. I conducted the study in the United States. I elicited patient perspectives regarding their experiences with using any telehealth technology to support the management of heart failure.

Problem Statement

There is a lack of information on the self-management experiences of patients with heart failure who received any telehealth services (i.e. via telephone, video calls, remote monitoring, etc.) during the COVID-19 pandemic in the United States. No articles could be located that described the self-management experiences of heart failure patients during the COVID-19 pandemic. The situation or issue that prompted me to search the literature was the COVID-19 pandemic, which imposed limitations and restrictions on healthcare providers regarding in-person appointments due to the risk of virus transmission. Uncontrolled chronic conditions such as heart failure are associated with shortened lifespans, lower quality of life, preventable hospital admissions, and increased costs to the healthcare system (Sabatier et al., 2022). Management of heart failure can be complex, with each patient having unique needs requiring an individually tailored treatment plan. Prevention of acute exacerbations decreases the need for unplanned hospital admissions and improves the quality of life (Sabatier et al., 2022). Education and health literacy play a significant role in patients' understanding of their diagnosis and treatment plan. During the pandemic, due to the limitations on in-person care, patients may not have received the education they needed to understand their diagnosis and treatment plan. Patients were often left with only telehealth as an option to receive care. Telehealth is defined as the utilization of telecommunication technology to remotely provide healthcare, including telephone calls, video calls, and remote patient monitoring (Health Resources and Services Administration, 2022). Heart failure tends to be a condition more common in the older population, who are less likely to be adept at using or educated in technology and may not have access to smart devices (Liu & Lampert, 2022). Their lack of experience with technology may negatively impact their ability to use all aspects of telehealth, leading to poorer symptom control and management (Wilson et al., 2021).

Purpose of the Study

The purpose of this qualitative study was to describe patient experiences with self-management of heart failure while receiving medical care through any type of telehealth service (e.g., telephone, video calls, remote monitoring) in the United States. Exploring these experiences was crucial for identifying ways to enhance patient care and satisfaction with telehealth in the future. A descriptive phenomenological approach was selected for this study, as it centers on individuals’ lived experiences, allowing for deeper insight into participants’ attitudes and perceptions rather than relying on the researcher's objective interpretations (see Sloan & Bowe, 2014).

Research Question

What are the self-management experiences of heart failure patients who received telehealth services during the COVID-19 pandemic?

Theoretical Framework for the Study

The theoretical framework used to anchor this study was Pender's health promotion model (HPM). HPM focuses on the individual needs of the patient, not just managing their diagnosis (Pender et al., 2011). The HPM defines health not as the absence of disease but instead as a positive dynamic state. The HPM focuses on holistic care, recognizing that people are complex, multifaceted individuals working within their environment to increase their level of well-being (McEwin & Wills, 2014). HPM has three areas of focus: individual characteristics and experiences, behavior-specific cognitions and affect, and behavioral outcomes (Pender et al., 2011). Individual characteristics and experiences are defined as prior related behavior and personal factors (Pender et al., 2011). Behavior-specific cognitions are defined as the perceived benefits of an action, perceived barriers to an action, perceived self-efficacy, activity-related effects, interpersonal influences, and situational influences (Pender et al., 2011). Behavioral outcomes are defined as commitment to a plan of action, immediate competing demands and preferences, and health-promoting behavior (Pender et al., 2011). Identifying each patient's unique needs, characteristics, and experiences is crucial, as these factors will influence the patient's actions and perceptions of health and well-being. These unique concepts will significantly impact the patient's knowledge and motivation toward achieving well-being. According to Pender et al. (2011), promoting health behaviors should lead to improved health, enhanced functional ability, and a better quality of life at all stages of development.

Nature of the Study

The nature of this research study was qualitative. I employed a descriptive phenomenological approach to explore the experiences of heart failure patients using telehealth to support self-management and their satisfaction with the care they receive. I followed Colaizzi's (1978) method to analyze the interview data and develop themes that describe patients' lived experiences.

Definitions

The key terms in the study included the following:

COVID-19 Pandemic: The worldwide epidemic of the acute infection caused by SARS-CoV-2 (Radhakrishnan, 2021).

Heart failure and congestive heart failure: These terms are often used interchangeably. For the purposes of this study, heart failure (HF) is defined as a chronic condition, a weakness of the heart that leads to a buildup of fluid in the lungs and surrounding body tissues, causing shortness of breath (Mayo Clinic, 2022).

Self-management: The ability of the patient to deal with all that a chronic illness entails, including symptoms, treatment, physical and social consequences, and lifestyle changes (Multiple Chronic Conditions, 2022).

Telehealth: Refers to using telecommunication technology to remotely provide healthcare (Health Resources and Services Administration, 2022).

Assumptions

Assumptions in a research study are parameters of the research that are understood to be true (Ravitch & Carl, 2021). I assumed that participants answered the interview questions honestly and factually. Another assumption was that the participants had adequate technology to utilize the telehealth service offered effectively. Additionally, I assumed that participants truthfully self-reported a diagnosis of heart failure and indicated that they received telehealth services to aid in the management of their disease during the COVID-19 pandemic. I also assumed that patients diagnosed with heart failure can benefit from management of their disease. Finally, I assumed that individuals with heart failure can achieve a quality of life that the individual finds satisfactory.

Scope and Delimitations

The primary objective of this study was to explore the experiences of patients who receive telehealth services in the United States. I focused on adults with heart failure who used telehealth services during the pandemic. Patients under the age of 18 and those residing outside the United States were excluded. My initial focus was on patient outcomes after using telehealth during the COVID-19 pandemic. With this focus, I initially considered conducting a quantitative study to assess the impact of telehealth on patient outcomes with admission and emergency room visits. Unfortunately, I was unable to locate a provider or practitioner who would allow me to have access to patient charts. This required changing the focus of the study. At that point, I decided to study patient perceptions of their experiences with telehealth to manage their condition and changed my approach to a qualitative approach, which would allow me to engage with participants and would provide more nuanced insights into how they perceived their condition was managed. I considered using Kolcaba's Comfort theory as my theoretical framework. Comfort theory describes comfort as a relief, ease, and transcendence that can occur in physical, psychospiritual, environmental, and sociocultural contexts (McEwin & Wills, 2014). I chose to use HPM it better aligned with the study as it explains the factors influencing health promotion behaviors by focusing on a positive, multidimensional view of health (McEwin & Wills, 2014). The findings of this study are expected to be transferable to other adult populations in the United States with different health conditions.

Limitations

Possible limitations in conducting this study included obtaining a sample size sufficient to reach data saturation. To address this, I employed both purposive and snowball sampling methods for participant recruitment. I ensured that I had no personal or professional relationships with any participants and remained mindful of potential biases to minimize their influence on the study. Another limitation was that participants' recollections of past events may be affected by the passage of time, potentially impacting the accuracy of their responses.

Significance

Findings of my study have the potential to help healthcare providers better understand patients' experiences with telehealth and their perceptions of how it impacts their ability to self-manage heart failure. Existing studies are conducted outside the United States and focus on specific telehealth technologies, resulting in limited knowledge about the broader range of telehealth services used by patients in the United States and their experiences with them (Kerr et al., 2020; Wali et al., 2021; Ware et al., 2021). This study addressed that gap by exploring the lived experiences of U.S. patients who use any telehealth to support heart failure management. This topic is significant because it has the potential to strengthen and expand the profession's knowledge base, improve patient outcomes, and contribute to the advancement of quality patient care. My study contributed to the global understanding of telehealth services, particularly in the context of managing chronic diseases, such as heart failure. I aimed to foster positive social change by deepening understanding of how patients engage with telehealth, enabling providers to tailor care more effectively. Such personalization may lead to improved chronic disease management, enhanced quality of life, reduced hospitalizations, extended lifespan, and lower overall healthcare costs.

Summary

Before the COVID-19 pandemic, telehealth was a limited option for healthcare in the United States due to a shortage of providers offering the service and inadequate insurance coverage (Shaver, 2022). When the pandemic occurred, all non-emergent health care was placed on hold while providers scrambled to identify a way to provide care to their patients virtually. Patients attempted to self-manage their conditions with limited support from their providers in the early months of the pandemic. As providers adopted and implemented telehealth services, patients had to learn how to use the telehealth service chosen by their providers. Without exploring patient experiences with telehealth, making recommendations for improvements to enhance the patient experience may be challenging or impossible. Chapter 2 describes the theoretical foundation and an in-depth review of the relevant literature.

Chapter 2: Literature Review

Introduction

The COVID-19 pandemic introduces additional challenges by limiting in-person appointments due to the risk of virus transmission. Numerous studies have examined telehealth and its impact on chronic health conditions, including heart failure (e.g., Kerr et al., 2020; Wali et al., 2021; Ware et al., 2021). However, these studies focused on telehealth programs at specific sites in the United Kingdom and Canada that use a specific telehealth system (the Medley smartphone system) and showed mixed results regarding patient experiences. Examining patient experiences in the United States is necessary due to the diversity of the patient population and the greater fragmentation of the healthcare system in the United States.

The purpose of this qualitative study was to describe patient experiences with self-management of heart failure while receiving medical care through any type of telehealth service (e.g., telephone, video calls, remote monitoring) in the United States.

In this chapter, I present the literature search strategy, the theoretical and conceptual foundation of the study, and the key constructs that support the interpretation of the study phenomenon. In this study, I addressed the gap in knowledge regarding the self-management experiences of patients with heart failure who receive telehealth services. This chapter is divided into three major sections: the literature search strategy, the theoretical/conceptual framework, and the focused literature review. The first section of the chapter outlines the literature search strategy employed in the study, detailing the databases searched and providing an explanation of the methods and terms used to conduct the comprehensive literature review. The second section of this chapter covers the theoretical foundation for the study, Pender's HPM. The third section of this chapter presents a focused literature review of the literature related to the use of telehealth in the management and self-management of heart failure patients.

Literature Search Strategy

I searched the literature through the Walden University Library using various search strategies and databases. I initially used a combined search of EBSCO, CINAHL, and MEDLINE with full text, OVID databases, PubMed, and Cochran using the keywords: *heart failure management* AND *patient perception* OR *attitude* OR *opinion* OR *experience* OR *perspective* OR *views* OR *feelings* OR *thoughts,* AND *telehealth* OR *telemedicine* OR *telemonitoring* OR *telepractice* OR *telenursing* OR *telecare*. Several of the databases (OVID, DOAJ, and Cochran) had zero results. CINHAL and EBSCO produced similar articles. Therefore, I decided to continue with EBSCO.

The initial search resulted in 60 articles. The search was limited to the English language. I limited the search to peer-reviewed articles, which resulted in 57 articles. I further limited the search to 2019 as the start year for peer-reviewed journals, resulting in 23 articles, 17 of which were published after 2020. I focused on the articles after 2020, as many of them had a COVID-19 component. However, I included some studies from 2019, as they provided a basis for research on telehealth before the COVID-19 pandemic. I used articles that closely aligned with the topic (e.g., Cuomo et al., 2020; Faroughi et al., 2021; Kerr et al., 2020; Hägglund et al., 2019; Oh, 2019; Wali et al., 2021; Ware et al., 2022) that discussed telehealth, heart failure, patient experience, the HPM, and the COVID-19 pandemic.

Theoretical Framework

HPM is a middle-range theory that offers a comprehensive framework for understanding the multifaceted nature of health-promoting behaviors, integrating biopsychosocial processes with individual cognitive-perceptual factors, contextual influences, and behavioral outcomes (McEwin & Wills, 2014). The model moves beyond traditional disease prevention models by emphasizing the proactive pursuit of well-being and self-actualization. McEwin and Wills (2014) asserted that Pender’s HPM prioritizes patients' individual needs rather than solely managing their diagnosis. Health, as defined by the HPM, is not merely the absence of disease but a positive dynamic state. The HPM emphasizes holistic care, acknowledging individuals' complexity and multifaceted nature as they strive to enhance their well-being within their environment (McEwin & Wills, 2014). According to Pender et al. (2011), the HPM comprises three key areas: individual characteristics and experiences, behavior-specific cognitions and affect, and behavioral outcomes. Individual characteristics and experiences encompass prior related behavior and personal factors. Behavior-specific cognitions entail perceived benefits of action, perceived barriers to action, perceived self-efficacy, activity-related affect, and interpersonal and situational influences. Behavioral outcomes refer to commitment to a plan of action, immediate competing demands and preferences, and engaging in health-promoting behaviors.

Understanding each patient's unique needs, characteristics, and experiences is crucial, as these factors significantly influence their actions and perceptions of health and well-being. These individualized concepts have a significant impact on the patient's knowledge and motivation towards achieving well-being (Pender et al., 2011). Promoting health behaviors, as advocated by Pender et al. (2011), should lead to improved health, enhanced functional ability, and a better quality of life across all stages of development. The HPM has been applied previously in similar ways to the current study. In the study by Faroughi et al. (2021), the HPM was employed to investigate the impact of an educational intervention on treatment adherence in patients with coronary artery disease. The study's results indicated that interventions using HPM are more effective in promoting treatment adherence among patients with coronary artery disease (CAD) than traditional education, with the authors recommending the integration of HPM into the care plan for CAD patients (Faroughi et al., 2021). Oh (2019) looked to identify factors affecting health-promoting lifestyles among older women with chronic disease, using the HPM to measure respondents' perceptions of health.

The logical connection between the HPM framework and the nature of my study lies in how behaviors influence health outcomes. Self-management of heart failure entails intentional engagement in health-promoting behaviors. According to the HPM, individuals engage in health-promoting behaviors if they perceive the benefits as valuable. Hence, the concepts of the HPM can inform the development of interview questions aimed at eliciting participants' experiences with telehealth and their perceptions of its value. I used the concepts of the HPM (i.e., Individual characteristics and experiences, Behavior-specific cognitions, and Behavioral outcomes) to craft interview questions for my study, examining patient experiences with self-managing heart failure while using telehealth services (e.g., telephone, video calls, remote monitoring) during the COVID-19 pandemic in the United States. Questions probing patients' overall health before and since the pandemic aligned with the individual characteristics and experiences concept of HPM. Inquiries regarding patient experiences in managing heart failure before and during the pandemic corresponded with the behavior-specific outcomes concept of HPM. Questions aimed at assessing patient experiences with telehealth during the pandemic resonate with the concept of behavior-specific cognitions (HPM).

Literature Review Related to Key Variables and/or Concepts

In the literature review, I addressed telehealth, the COVID-19 pandemic, the HPM, heart failure, and patient experience. Research describing heart failure patients' experiences with telehealth was limited. While searching the literature, I found several studies that addressed the experiences of heart failure patients utilizing telehealth during the COVID-19 pandemic. However, none of those studies were conducted in the United States, and all involved a specific telehealth system. In the United States, there exists a range of socioeconomic, cultural, and ethnoracial determinants—such as household income, employment status, insurance coverage, and physical mobility—may exert significant influence on individuals' interactions with, and differential access to, healthcare systems (Yu et al., 2025). I found one study that was completed in the United States on telehealth and heart failure patients as a direct result of the COVID-19 pandemic. However, the study aimed to determine if heart failure could be effectively managed via telehealth and did not account for patient experience.

Telehealth

Studies have been conducted on telehealth and chronic health conditions, including heart failure (see Kerr et al., 2020; Wali et al., 2021; Ware et al., 2021). The results of these studies have been mixed in that patients cited various positive and negative experiences with telehealth (see Kerr et al., 2020; Wali et al., 2021; Ware et al. 2021). All the studies sought to evaluate telehealth programs at a specified site, and all the studies involved a specific telehealth system (the Medley smartphone system). Further, none of the above studies were conducted in the United States (one was conducted in the United Kingdom, and the others were conducted in Canada).

Kerr et al. (2020) conducted a prospective observational report involving 339 patients, with over 100 patients were assessed each week via face-to-face consultation, structured telephone assessments, and virtual consults to provide high-risk patient appointments, clinical follow-up post discharge after a heart failure hospitalization, new patient referrals, annual review appointments to update heart failure strategy, nurse-led drug titration, and self-care education clinics. The authors set out to address the impact of the COVID-19 pandemic on the functioning of an HF DMP (heart failure disease management program), assessing physician and patient perspectives of the switch to predominantly remote care, and using this experience to analyze whether any aspect of the F2F (face to face) work of an HF unit could successfully be transferred to remote care beyond the COVID-19 crisis. (Kerr et al., 2020, p. 1).

They found that patients preferred the structured telephone assessment due to the perceived convenience. They also found that patients who reported structured telephone assessments had a negative impact on care and preferred face-to-face visits. The authors identified a gap in their research: they did not report the effect of the change to telehealth on clinical outcomes.

Wali et al. (2021) conducted a single-case qualitative study to understand the experiences of patients, clinicians, and staff using a telemonitoring program at a clinic in Canada. There were 29 participants: 16 patients, nine clinicians, and four operational staff. The study had four themes: providing care continuity through telemonitoring, adapting telemonitoring operations for a more virtual healthcare system, confronting virtual workflow challenges, and fostering a meaningful patient-provider relationship. The study's outcome showed that telemonitoring services had significant value. However, there were issues with system integration and alert-driven interactions, which the authors believed jeopardized the perceived sustainability of the program. The authors recommended adapting and increasing the availability of telemonitoring services to build a stronger virtual relationship and a more holistic assessment of patient well-being.

Ware et al. (2022) conducted a randomized controlled trial that aimed to evaluate the impact on and experiences of providers and patients with complex conditions using a telemonitoring system compared with the standard of care. The conditions identified to take part in the study were heart failure (HF), diabetes (DM), and hypertension (HTN), with participants having one or more of the diagnoses. The authors attempted to get 146 patients to participate in the study. Still, they were only able to get 96 patients because recruitment ended early due to implementation challenges and the start of the pandemic. The study found that while participants with HF reported benefitting from actionable self-care guidance and meaningful interactions with their providers, DM and HTN patients and their providers did not think telemonitoring improved the clinical management of those conditions to the same degree. The authors attributed the difference to the need for more urgent interventions for patients with HF than those with DM or HTN.

COVID-19 Pandemic

Cuomo et al. (2020) conducted a study involving a practice change in which telehealth services were implemented at a heart failure (HF) clinic in response to the COVID-19 pandemic. The data were collected over a five-week timeframe. The study compared the appointment outcomes between patients seen via telehealth and those with in-person appointments. During that time, 116 patients were seen 164 times, with 96 of the visits being completed via telehealth. Of the 96 patients, six were referred for in-person appointments. Of the telehealth patients, 26% had a change in dosage of their oral diuretic, whereas 50% of patients seen in person required intravenous (IV) diuretic administration. The authors concluded that HF patients could be effectively managed via telehealth, but some require access to in-person appointments for IV diuretic administration to avoid hospitalization. However, in their research, the authors did not include patient experience or how the patients felt their HF was managed utilizing telehealth services.

Health Promotion

Faroughi et al. (2021) conducted a randomized controlled clinical trial in Iran with the intent to determine the effect of educational intervention based on Pender's Health Promotion Model (HPM) on adherence in patients with coronary artery disease (CAD). The study included 64 patients with CAD, with data collected at three points in time: before the intervention, 1 month after the intervention, and 3 months after the intervention. A treatment adherence questionnaire and checklist were used as the instruments to collect the data. The intervention group received dietary, medication, and exercise education, while the control group received routine hospital education. The study concluded that interventions using HPM are more effective in improving treatment adherence than traditional education in patients with CAD, with the authors recommending the integration of HPM into the care plan for CAD patients.

Heart Failure

Oh (2019) used surveys to conduct a cross-sectional, descriptive, quantitative study of 232 women aged 65 years and older with at least one chronic disease. The survey used was a compilation of multiple surveys and scales. The Health Perceptions Questionnaire was used to measure respondents' perceptions of their health. Self-esteem was measured using the self-esteem scale developed by Rosenberg. Social support was assessed using the Medical Outcome Study Social Support Survey (MOSS-SS). The level of engagement was assessed using the Health Promotion Lifestyle Profile II. The authors used Pender's Health Promotion Model (HPM) to explore the relationships between sociodemographics, self-esteem, self-efficacy, perceptions of current health, and social support. The study's results showed that social support had the most significant effect on health-promoting lifestyle. They encouraged strengthening support systems, using resources for senior fitness, and maintaining strong friendships and family relationships. Additionally, it utilizes HPM to measure respondents' perceptions of their health.

Patient Experience

Hägglund et al. (2019) conducted a qualitative study using semi-structured interviews to investigate whether the situation-specific theory of heart failure self-care could be applied to heart failure patients using a mobile health system (mHealth), specifically a tablet computer connected to a weighing scale, to support their self-care. The authors aimed to validate the experiences of heart failure patients using the mHealth tool across three phases of the self-care process: self-care maintenance, symptom perception, and self-care management. The study included 17 participants. The study's outcome revealed that the mHealth system improved adherence, provided support for maintaining self-care, enhanced both physical and psychological symptom perception, influenced the development and use of skills, and fostered independence in self-care management. The authors noted that selection bias may exist in their study, as the participants had all previously trialed the mHealth system; therefore, they do not know how patients who were not included in previous trials would perform in self-care.

Summary and Conclusions

The literature review discussed several components of my study; however, none addressed all the specifics I studied. Researching the literature provided insight into the use of the HPM in research, the effectiveness of telehealth in adherence to treatment plans, patient experiences with utilizing specific telehealth services, and the role of specific providers. None of the research conducted to date has studied heart failure patients' experiences with telehealth in the United States since the beginning of the COVID-19 pandemic.

Given the diversity of the patient population and the greater fragmentation of the healthcare system in the United States, studies conducted within this country are needed to determine whether there is consistency with prior findings. Chapter 3 will discuss the trustworthiness of the study, the research design and rationale, methodology, participant, and my role as the researcher.

Chapter 3: Research Method

Introduction

The purpose of this qualitative study was to describe patient experiences with self-management of heart failure while receiving medical care through any type of telehealth service (e.g., telephone, video calls, remote monitoring) in the United States.

In this chapter, I discuss the study's design and rationale, methodology, researcher's role, instrumentation, trustworthiness, and ethical practices regarding the research process.

Research Design and Rationale

A research design encompasses a set of procedures employed to collect, analyze, and elucidate the gathered data (Ravitch & Carl, 2021). I used a descriptive phenomenological approach because it is crafted to delve into and comprehend the everyday lived experiences of individuals (see Colaizzi, 1978). I collected robust data from heart failure participants who received telehealth services since the COVID-19 pandemic. The research question was the following:

RQ: What are the self-management experiences of heart failure patients who received telehealth services during the COVID-19 pandemic?

I employed open-ended interview questions to draw out comprehensive information and supplemented them with probing or follow-up questions to ensure clarity.

Role of the Researcher

In the study, I served as both the recruiter and interviewer. My responsibilities included collecting, coding, and analyzing data. As the researcher, I actively engaged in the process as an instrument, ensuring objectivity by refraining from imposing my personal views, beliefs, values, or feelings into the study. I maintained a professional distance by not having any personal relationships with the participants. Additionally, I am neither an employee nor a patient at any of the participants' physicians' practices, and I had no prior acquaintance with anyone employed at those sites during the study period. All participants were personally unknown to me.

As the researcher, I took care to avoid situations that could potentially lead to conflicts of interest. Participants willingly volunteered their time and shared information about their experiences. To mitigate researcher biases, I concentrated on actively listening to participants' descriptions and explanations of their experiences, asking relevant follow-up questions for clarification, and ensuring I had a clear understanding of participants' responses without imposing my thoughts, judgments, or values.

As the researcher, I stayed vigilant regarding potential ethical issues that might have arisen during the study. Recognizing that such problems could compromise the study's validity. I took proactive measures to address and navigate them appropriately. I do not work in telehealth, clinical care, or with heart failure patients. Due to this, the study remained unbiased and unaffected by my personal beliefs, thoughts, or feelings regarding telehealth. Ethical concerns were mitigated by ensuring the proper signing and approval of consent forms. Each potential participant received a consent form via email.

After reviewing it, they expressed their consent by replying to the consent form email with the words "I consent," indicating their willingness to participate. A comprehensive explanation of the research process was provided, including the assurance of confidentiality and protection of personal identifying information. The data obtained are securely stored on a password-protected device, accessible only to me, who has exclusive knowledge of the password. In the study, I refrained from using participants' names or any other identifying information, instead assigning pseudonyms (e.g., Participant A, Participant B). Participants were given the opportunity to ask questions and were informed of their right to withdraw from the study at any time.

Methodology

Participant Selection Logic

The study's participants consisted of heart failure patients who received some version of telehealth services since the start of the COVID-19 pandemic. Purposeful sampling was the primary sampling strategy for the study. According to Ravitch and Carl (2021), purposeful sampling involves the deliberate selection of participants to provide comprehensive and insightful data that unveils the phenomenon under exploration by the researcher. To ensure the study reached data saturation, participants were identified using a snowball sampling approach. Snowball sampling is a nonprobability sampling method in which current study participants actively recruit future subjects from within their social circles or acquaintances (Ravitch & Carl, 2021). Additionally, the study was listed on Walden University's Participant Pool website. I actively listened and communicated respectfully with each participant to determine if they met the inclusion criteria. All participants met the inclusion criteria, and none were excluded.

Patients with a heart failure diagnosis who received telehealth services since the pandemic were the purposefully selected participants. They offered direct personal narratives of their experiences, providing substantial information that made a significant contribution to the study. The inclusion criteria were clearly defined to ensure that only participants who met the requirements could respond and participate in this qualitative study.

The primary objective of collecting qualitative data is to obtain comprehensive and rich data from a limited group of individuals or participants (Ravitch & Carl, 2021). To achieve this, I planned to use approximately 30 participants for my research study, understanding that the necessary number of participants is determined by the point at which saturation is attained. Data saturation is defined as the point at which the data being collected provides no additional insights or issues, and the data begins to repeat and become redundant (Ravitch & Carl, 2021). The study included 22 participants before data saturation was achieved.

To ensure confidentiality, participants in the study were given unique identifiers and were contacted privately by email. Participants were recruited through social media posts on Facebook and LinkedIn, as well as the Walden University Participant Pool website. To deliver a study rich in meaningful, reliable, and trustworthy data, I incorporated the steps to ensure trustworthiness in my research (credibility, dependability, transferability, and confirmability). I adhered to ethical procedures and continued the interviewing and coding processes until reaching the point of data saturation.

Instrumentation

In my role as the researcher, I served as the research instrument. In qualitative studies, the researcher's background, skills, and experiences play a crucial role, as they act as the instrument responsible for engaging in fieldwork and interview processes (Rubin & Rubin, 2012). I conducted Zoom meetings and used a voice recorder to ensure there were audio recordings as a backup for the data collected. To ensure participant eligibility and interview consistency, at the beginning of each interview, I reviewed the consent form with the participants, including the inclusion criteria, and confirmed the participants met the inclusion criteria and were eligible to participate in the study. Open-ended interview questions were utilized and designed based on the overarching research question:

RQ: What are the self-management experiences of heart failure patients who received telehealth services during the COVID-19 pandemic?

Participants were interviewed in private Zoom meeting sessions between the researcher and the participant to maintain privacy and confidentiality. Initially, I considered conducting group interviews with several participants, but I determined that it was essential to speak with each participant one-on-one to ensure they were comfortable and not hindered from answering questions honestly due to the presence of others. I took measures to ensure the comfort of my participants, conducting the interviews in a manner that was respectful, nonjudgmental, and nonconfrontational. The instruments were adequate for data collection as they were successfully used to facilitate the gathering of in-depth information with approved interview questions and appropriate follow-up questions. The recorded data was transcribed, verified with the participants for accuracy, then coded to identify emerging themes.

Procedures for Recruitment, Participation, and Data Collection

I designed a recruitment flyer (see Appendix A) that outlines the study, participation requirements, and provided my contact information, including phone number and email address. Prospective participants were invited to contact me via email or phone if interested in participating. Upon their agreement to participate, I provided the informed consent document, emphasizing the audio recording of the Zoom interview and the provision of a transcribed copy for review. Participants were reminded of their right to withdraw at any point.

Using Zoom and audio recordings as data collection tools facilitated outreach to participants across the United States. Data collection took place in a secluded room in my home, ensuring privacy. Analysis, coding, and collection were conducted in a single session per participant, with no follow-up inquiries made after the interview. Interview durations ranged from 8 to 12 minutes, recorded on Zoom with an audio backup.

I debriefed each participant after their interview, encouraged additional input, reaffirmed confidentiality, and reiterated the right to withdraw. Participants were assured a transcribed interview copy for accuracy review. I also informed the participant of the potential for follow-up interviews, which would only occur after advanced contact and would be scheduled at their convenience.

Data Analysis Plan

I conducted this qualitative descriptive study to describe patients' experiences with self-managing their heart failure while receiving medical care using any telehealth service (i.e., via telephone, video calls, remote monitoring, etc.) in the United States. I used descriptive coding to analyze the transcribed interviews, identifying common themes and topics (Saldana, 2016).

I used the transcription software tool Otter.ai to assist with data transcription. I also used voice transcription in Microsoft Word to transcribe the recordings from the voice recorder, ensuring that the data matched and accurately reflected the interview. The document was then reviewed and edited for accuracy. Utilizing the steps outlined by Colaizzi (1978), I analyzed the interview data and developed themes that describe the patients' experiences. Colaizzi's (1978) steps include:

1. Read and reread each transcript to obtain a general sense of the whole content.
2. Extract significant statements from transcripts that relate to the phenomenon under study
3. Formulate meanings derived from significant statements
4. Organize formulated meanings into clusters of themes and themes
5. Integrate findings into an exhaustive description
6. Describe the fundamental structure of the phenomenon
7. Validate the findings from the study participants

Microsoft Word was used to create a document that enabled me to organize codes and identify emerging patterns and themes. Discrepancies were addressed by reporting all findings, regardless of their nature or representation. Utilizing tables, I highlighted commonalities among the data to ensure maximum transparency, thus enhancing the future validity of the study.

Issues of Trustworthiness

For research to have value, it must be credible. According to Ravitch & Carl (2021), researchers employ specific methods to enhance the rigor and validity of qualitative research studies. Researchers should prioritize reporting their findings accurately, rather than manipulating the data to align with their preconceived ideas (Ravitch & Carl, 2021). I gathered and coded the data from the interviews until no additional themes or patterns emerged, indicating that data saturation had been achieved.

Credibility

The credibility of my research was achieved by asking adequate and appropriate probing and follow-up questions during the interview to ensure clarification and allow participants to express and describe their viewpoints without interruptions or judgment. Triangulation was established by recruiting a diverse range of participants and continuing the interview process until saturation was achieved. Additionally, I built trust with the participants by being open and honest, sharing necessary information, and ensuring they felt comfortable throughout the process through active listening and appropriate questioning. Furthermore, using the steps outlined by Colaizzi (1978) to analyze the interview data and develop themes that describe patients’ experiences, I ensured that participants' descriptions of their experiences were fully captured and that my explanations of their experiences were accurate and congruent. According to Creswell and Creswell (2018), this process is crucial for capturing in-depth and rich data, thereby enhancing the credibility of the study.

Transferability

Transferability is the process by which the research findings can be applied to another area, situation, and individuals (Creswell & Creswell, 2018). Data collected during the research was congruent with the research questions using established audio and video interviewing sessions. The transferability of the study was increased by providing in-depth descriptions of the research methods, setting, and varying experiences and backgrounds of participants. By providing such detailed information, the audience will be able to understand better the connection and relatability of the participants, the researcher, and the research environment, and appreciate the possibility of transferring parts of the study to another context. According to Creswell and Creswell (2018), transferability is the process by which adequate information on the completed research is provided to the audience, enabling them to develop similarities between the researcher's study and another study, and transfer its findings.

Dependability

According to Ravitch and Carl (2021), dependability requires a reasoned argument for data collection, data that is consistent with the argument, and answers core concepts and constructs of the study. Data triangulation was employed to validate the credibility of the results, and a deeper exploration of the research experience was conducted through reflective analysis. Data triangulation and sequencing, along with crafting a well-articulated rationale for these selections, ensured the dependability of the data collection plan and its alignment with the research question (Ravitch & Carl, 2021). My journal entries and reflection notes served as grounding tools, facilitating reflection on interviews and aiding in achieving triangulation. Comparative analyses with similar studies were conducted to demonstrate the transferability of findings, including participant selection. A comprehensive audit ensured the accuracy, absence of personal biases, credibility, and dependability of every aspect of the study. Verification of the research process was conducted by both my dissertation chair and the second committee member to ensure the integrity of the findings. Reflective analysis encompassed considerations of cultural competence, respect for participants, and the research process itself.

Confirmability

According to Ravitch and Carl (2021), confirmability is frequently likened to the qualitative counterpart of the quantitative notion of objectivity, acknowledging that qualitative researchers don't assert objectivity but rather aim for data confirmability, relative neutrality, and reasonable freedom from undisclosed researcher biases. To ensure the trustworthiness of my research data, all emerging themes from the coded material were confirmed to verify the accuracy of the analyzed information and the resulting findings. To demonstrate research rigor, my work underwent verification and auditing by faculty members (the chair and committee member) to ensure that the conclusions accurately reflected the data rather than my perceptions. Additionally, I demonstrated confirmability by utilizing my notes, reflecting on interview sessions and data, and acknowledging any subjective or personal judgments and observations made throughout the research process (Ravitch & Carl, 2021).

Ethical Procedures

Before beginning the recruitment of participants and collecting research data, I discussed possible restrictions for my study and study participants with my dissertation chair. I took measures to ensure I encountered no ethical concerns or other significant issues in my research. Although my study did not involve a vulnerable population, I respected the participants and their dedication to the research process. Participants' data was de-identified to safeguard privacy by removing names and any identifiable information from the study. Pseudonyms were assigned to participants to protect both their identities and the data.

I received IRB approval on April 11, 2025, approval number 05-24-24-0358260. During the commencement of interviews and data collection processes, only I (the researcher) was present in the room; no one else was present. Additionally, thorough explanations about the research were provided, and extra time was allocated for questions to clarify information and avoid miscommunication. Each participant received a $20 electronic gift card solely as a token of appreciation for volunteering, not as payment for participating in the study. Participants were informed that they could withdraw at any time without consequences and that their information would be kept confidential. Documents approved by Walden IRB, including the consent form and recruitment flyer, All participants were provided with informed consent forms to sign and submit. To ensure ethical compliance, I sought advice and clarification from my committee as needed, thereby avoiding any potential violations. Participants received comprehensive briefings about the study to ensure transparency and adherence to ethical guidelines. Their information has been securely stored on password-protected or encrypted devices, accessible only to me. Data will be retained for five years, as required by Walden’s IRB. Participants were assured of their right to refuse participation or withdraw from the study at any point. Regardless of withdrawal, all personal information will remain confidential. Each participant's personal data has been de-identified by removing names and any other identifiable information, and pseudonyms were employed for anonymity. Only the participant and I were present during the data collection and interview sessions. After the recommended time has passed, the data will be destroyed. The study was not conducted at my workplace and did not include participants whom I knew or supervised to avoid conflicts of interest.

Summary

In Chapter 3, I provided a detailed description of the study's methodology, including participant selection, inclusion and exclusion criteria, the chosen approach, and the analytical framework. I also discussed potential ethical issues, strategies for mitigating these issues, confidentiality, privacy, and the protection of participants and their information. Additionally, the trustworthiness of the study was discussed to allow the reader to understand that the information can be trusted and will be verified and audited for accuracy. In Chapter 4, I provide an in-depth discussion of recruitment information and study results.

Chapter 4: Results

Introduction

The purpose of this qualitative study was to describe patient experiences with self- management of their heart failure while receiving medical care using any telehealth service (i.e. via telephone, video calls, remote monitoring, etc.) in the United States. The research question was the following:

RQ: What are the self-management experiences of heart failure patients who received telehealth services during the COVID-19 pandemic?

To answer the research question, I explored the feelings, experiences, and perceptions of heart failure patients regarding their ability to self-manage their condition using telehealth services. This study was needed due to the lack of information on the self-management experiences of patients with heart failure who receive telehealth services.

I conducted a qualitative descriptive study using Colaizzi's seven steps to code and analyze each participant's interview. I employed open-ended questions to encourage each participant to share their experiences. I used follow-up questions as necessary to delve deeper into responses that required clarification. Identifying commonalities in the participants' information enabled me to categorize and group the data into themes, facilitating the interpretation of findings. In Chapter 4, I describe the setting, participant demographics, and methodologies employed for data collection. Furthermore, I address the establishment of trustworthiness criteria and present the study's findings.

Setting

Twenty-nine participants met the eligibility requirements to participate in the study. Eligible candidates were scheduled for a Zoom interview based on their availability. I sent the Zoom invitations with the date and time and followed up with a separate email that included the date, time, and link for the Zoom meeting. Several participants missed their interviews but emailed later to request rescheduling. Out of the 29 possible participants, interviews were completed with 22. The remaining seven did not attend and were not rescheduled. All eligible participants were interviewed via recorded Zoom meetings, with interviews additionally audio recorded using Otter Pilot and a separate voice recorder as precautionary backups in case of any issues with the meeting platform.

Demographics

A total of 29 participants consented to be interviewed, all of whom were eligible. I conducted one-on-one interviews with each participant. Participants were all female, with ages ranging from 30-47 years old, and lived throughout the United States, residing in Delaware (1), California (5), Texas (6), Connecticut (1), Minnesota (2), and New York (7). All the patients have a diagnosis of heart failure. None of the participants had heart failure before the COVID-19 pandemic and were diagnosed since the start of the COVID-19 pandemic.

Data Collection

Before collecting data, I emailed each potential participant the consent form outlining the study's requirements and the interview questions. Upon receiving their consent, I coordinated with each participant to schedule a mutually agreeable date and time, and a Zoom meeting invitation was sent to the participant, followed by a separate email confirming the date and time of the interview as well as the Zoom meeting link. In total, 29 individuals agreed to participate in the study, but only 22 were interviewed. All participants agreed to be interviewed on Zoom audio, although technical issues required one participant to answer her questions via chat instead of orally. In addition to recording interviews via Zoom, I used Otter Pilot and a voice recorder as backup devices to ensure uninterrupted data collection in case of any technical issues that could have interfered with data collection.

Data Analysis

I used descriptive coding to analyze the transcribed interviews, identifying common themes and topics (Saldana, 2016). I used the transcription software tool Otter.ai to assist with data transcription. I also used voice transcription in Microsoft Word to transcribe the recordings from the voice recorder, ensuring that the data accurately reflected the interview. The document was then reviewed and edited for accuracy. Using the steps outlined by Colaizzi (1978), I analyzed the interview data and developed themes that describe the patients' experiences. Colaizzi's steps include:

1. Read and reread each of the transcripts to obtain a general sense about the whole content.
2. Extract significant statements from transcripts that relate to the phenomenon under study
3. Formulate meanings derived from significant statements

4. Organize formulated meanings into clusters of themes and themes
5. Integrate findings unto an exhaustive description
6. Describe the fundamental structure of the phenomenon
7. Validate the findings from the study participants

Microsoft Word was used to create a document that enabled me to organize codes and unveil emerging patterns and themes. Discrepancies were addressed by reporting all findings, regardless of their nature or representation. Using tables, I highlighted commonalities among the data to ensure maximum transparency, thus enhancing the future validity of the study.

Evidence of Trustworthiness

The trustworthiness of qualitative data refers to the extent to which confidence can be placed in the methodologies employed for data collection, the processes of interpretation, and the strategies implemented for ensuring quality assurance (Saldana, 2016). The trustworthiness of qualitative research is essential for establishing the integrity of the findings. Four critical components contributing to data trustworthiness are credibility, transferability, dependability, and confirmability.

Credibility

The credibility of my research was established through careful and appropriate probing and follow-up questions during interviews, allowing participants to express their viewpoints freely and without interruption or judgment. I achieved triangulation by recruiting a diverse group of participants and continuing the interviews until saturation was achieved. Building trust with participants was crucial; I fostered an open and honest environment, shared relevant information, and ensured they felt comfortable by practicing active listening and asking thoughtful questions. Additionally, I followed Colaizzi's (1978) steps for analyzing the interview data and developing themes that accurately reflect patients' experiences. This approach ensured that participants' descriptions were fully captured and that my interpretations were accurate and consistent. As noted by Creswell and Creswell (2018), this process is vital for gathering in-depth, rich data, thereby enhancing the study's credibility.

Transferability

Transferability refers to the extent to which research findings can be applied to different contexts, situations, and individuals (Creswell & Creswell, 2018). This study's data aligned closely with the research questions, utilizing established audio and video interview techniques. The transferability of the findings was enhanced by offering detailed descriptions of the research methods, setting, and the diverse experiences and backgrounds of the participants. This level of detail allows the audience to understand better the connections and similarities between the participants, the researcher, and the research environment, facilitating the potential for applying aspects of the study to other contexts. According to Creswell and Creswell (2018), providing comprehensive information about the completed study enables the audience to identify parallels with other research, thereby enhancing the potential for transferring its findings.

Dependability

Dependability involves providing a well-reasoned justification for data collection, ensuring that the data aligns with this rationale and addresses the core concepts of the study (Ravitch & Carl, 2021). To enhance the credibility of the results, I employed data triangulation and engaged in reflective analysis to further explore the research experience. Using data triangulation and sequencing, along with a clearly articulated rationale for these choices, ensured that the data collection plan was dependable and closely aligned with the research question (Ravitch & Carl, 2021). My journal entries and reflection notes acted as grounding tools, facilitating reflections on the interviews and contributing to the triangulation process. Additionally, I conducted comparative analyses with similar studies to illustrate the transferability of the findings, including the selection of participants. A comprehensive audit was conducted to verify the accuracy and credibility of every aspect of the study, eliminating personal biases. My dissertation chair and second committee member further validated the integrity of the findings. Reflective analysis also included considerations of cultural competence, respect for participants, and the research process itself.

Confirmability

Confirmability is often compared to the quantitative concept of objectivity, recognizing that qualitative researchers do not claim complete objectivity but strive for data confirmability, relative neutrality, and a reasonable absence of undisclosed biases (Ravitch & Carl, 2021). To ensure the trustworthiness of my research data, I confirmed all emerging themes from the coded material to verify the accuracy of the analyzed information and resulting findings. To demonstrate research rigor, my work was subject to verification and auditing by faculty members, including my chair and committee member, ensuring that the findings accurately reflected the data rather than my personal perceptions. Furthermore, I established confirmability by using my notes to reflect on the interview sessions and data while also acknowledging any subjective judgments or observations made throughout the research process (Ravitch & Carl, 2021).

Data Variations

In Chapter 3, I stated that I would use journal entries and reflection notes as grounding tools, facilitating reflection on interviews and aiding in achieving triangulation. This was completed as described, resulting in no data variation in this study.

Unusual Circumstances

I encountered several unusual circumstances during my data collection process. At the beginning of all but one interview, the participant did not respond when greeted. I asked the participants to check to see if they were muted and sent a message in the meeting chat asking if they could hear me. The participants could be heard in their responses by approximately the one-minute mark.

Nearly half of the participants encountered intermittent connection issues during their interviews, resulting in unintelligible responses. Except for one participant who chose to type responses in the Zoom Chat instead of changing location, all others were able to improve connectivity by relocating to areas with better signal strength. Three additional participants initially called from noisy environments, prompting them to move to quieter spaces to enhance clarity. Two participants had infants present, occasionally causing background noise during the interviews. In every instance, questions were reiterated to ensure comprehension, and all answers were restated to participants to verify the accurate capture of their responses. All the attempted interviews were successfully conducted and completed.

Data Analysis

Through rigorous descriptive qualitative analysis, I explored the data in-depth to elucidate the participants' lived experiences. The transcripts underwent meticulous review, focusing on extracting essential claims to derive their nuanced meanings. As I generated codes from the data, I delved into understanding the participants' experiences by thoroughly engaging with the transcribed material, repeatedly reading and annotating for insights into each participant's unique journey. Through this process, emergent codes revealed discernible patterns in participants' cognitive, emotional, and perceptual frameworks, providing valuable insights into their experiences with managing heart failure using telehealth. The primary themes derived from the data included the diagnosis of heart failure among all participants during the pandemic, increased challenges in managing heart failure before the adoption of telehealth, difficulties encountered with telehealth utilization due to inexperience or technological barriers, and unanimous reports of improved health outcomes since implementing telehealth for heart failure management.

Codes to Themes

Otter AI was used to transcribe the recorded conversations with the participants. I also used the transcription function in Microsoft Word to transcribe the interview recordings from the voice recorder, ensuring that no data was lost. I ensured the accuracy of each transcript by repeatedly listening to the recorded interviews, then sending a copy to each participant and receiving confirmation from the participant that the transcript of their interview was correct. After receiving this confirmation, I used Colaizzi's (1978) descriptive phenomenological method, a seven-step process, to analyze the interview data. Initially, I gained a comprehensive understanding through repeated readings. Significant statements relating to the phenomenon were extracted, and meanings were derived from these statements. These meanings were then organized into clusters of themes and overarching themes. The findings were then synthesized into a comprehensive description of the phenomenon. I completed the data analysis with steps six and seven, describing the fundamental structure articulated based on integrated findings and validating the findings through participant feedback and verification. These seven steps allowed me to systematically and comprehensively review the participants' experiences, applying a descriptive analysis approach to the study with clarity and logic.

Once participants confirmed that the call transcripts accurately reflected their interviews and feelings, I derived codes and themes from the transcribed data. Initially, I organized text directly copied from the transcripts into a single Word document, grouping responses by question and presenting each participant's answer in bullet points. After consolidating all transcripts into one document, sorted by question, I reviewed the responses gathered for each question. Subsequently, I coded the responses by grouping similar or identical answers. Sections of text that conveyed multiple meanings received multiple codes. Finally, similar codes were grouped into categories to facilitate the sorting of material based on the initial codes. I carefully reviewed the newly established themes, methodically reading through the transcripts, categories, and themes. A theme in research refers to patterns found within the data that contain essential information directly relevant to the research question, highlighting meaningful connections and insights that contribute to addressing the study's core objectives (Saldana, 2016). I aimed to ensure that the themes and codes accurately reflected the original data and that all pertinent information was appropriately incorporated. This process allowed me to establish connections between the participants' described experiences managing their heart failure using telehealth.

Participants in the study ranged in age from 30 to 47 years. They resided throughout the United States, specifically Delaware (1), California (5), Texas (6), Connecticut (1), Minnesota (2), and New York (7). All participants denied having a diagnosis of heart failure before the pandemic. All participants reported using some form of telehealth since the start of the pandemic.

When asked to describe their health before the COVID-19 Pandemic, most participants reported a range from "fair" to "good". Some said they were "sometimes sick, sometimes well". Only five participants stated they had any health issues before the pandemic, but all denied having a diagnosis of heart failure before the pandemic. One participant stated their health before the pandemic was “on and off sickly”. Another participant reported, “My overall health was basically not so good,” while another stated, “I was a bit sick for some time.” Other participants reported that their health was “calm, doing well,” and they were “pretty healthy.”

Theme 1: Getting a Heart Failure Diagnosis

The first theme emerged when discussing when each participant was diagnosed with heart failure. When asked to describe their overall health since the start of the COVID-19 pandemic, all participants stated they had been diagnosed with heart failure since the start of the pandemic. Participant A stated they were diagnosed “In the middle of the pandemic, around 2021, towards the middle of June, I got really sick and was on and off in the hospital (for heart failure) until I found telehealth, which was like a savior to me”. Participant C stated they were diagnosed with heart failure “just immediately on the onset of COVID”. Participant G noted that their “symptoms were there (before the pandemic), but it escalated during the beginning of the pandemic” leading to their diagnosis. Participant U stated “around February 2021 I had to be rushed to the hospital. I had a lot of swelling, almost my whole body was swollen, and my blood pressure was unstable,” and was diagnosed with heart failure during that admission. Participant H stated, “I was very sick. I had heart issues. I had blood pressure issues. I had a lot of swelling on my limbs. It wasn’t good”.

Theme 2: Managing Newly Diagnosed Heart Failure During the Pandemic

When asked to describe their experiences managing their heart failure since the start of the COVID-19 pandemic, there was a wide range of responses. Participants described access to care issues, alternating between sick and well, finding the diagnosis challenging, and being admitted to the hospital for heart failure symptoms. Participant F stated, “At first, I wasn’t getting the medical attention…there was a lot of isolation”. Participant G said, “When I was diagnosed, I was in bad shape, but I think with the medication, with the support system, with people around me, and having someone to talk to made things better”. Participant L stated, “I think for me, since the start of the pandemic, it’s been a rollercoaster, but towards 2021, around December, that is when we started telehealth, which I found actually worked better”. Participant O stated, “I had breathing difficulties. I had a lot of fatigue. I didn’t go to work” and “It has not been easy in terms of getting the care itself, especially in-person visits. They were really difficult. I can remember there were COVID restrictions, and then people started having doctors come to their homes. That was not working so well for me. That’s when I opted for telehealth”.

Theme 3: Experiences with Telehealth

When asked to describe what aspects of their self-management went well using telehealth, most felt telehealth was easy to use. Additionally, many felt that it was helpful to know when appointments were and to have reminders emailed to them. Several participants stated the cost was minimal and that telehealth was very convenient and effective. A few participants stated they enjoyed talking with the doctors, saying the doctors were readily available. Participant U stated, “My experiences were quite good as I got the necessary help that I looked for. It became even better with telehealth. My body stopped swelling. I was able to take the right medication” and “Using telehealth is very easy compared to having to travel because you’re using the internet and, in a platform, such as Zoom”. Participant O stated, “I feel it’s basically the convenience and being able to have other people support me while I am at home.” Participant M stated, “I think telehealth really assisted so many people, especially those who were not able to travel or those who were in very bad situations”. Participant L stated, “There were frequent consultations, and appointments made it even easier.” Participant I stated, “It was a God-sent platform because it made things easier on my end. It gave me access to the best doctors and the best nurses” and “I would call in, and someone would pick up because at times (before telehealth) I had people say they would call, but they might not call back”. Participant H used telehealth to locate peer support groups, stating, “Peer support makes things work better and things okay because you have people to talk to.” Regarding telehealth, Participant H also stated, “I found it easy, very cost effective, very interactive”.

Theme 4: Access Issues

When asked what aspects did not go so well in managing their heart failure using telehealth, most participants stated they had no issues. Of those who verbalized problems, the issues they described were technology-based. Participant B stated initially, “It was difficult accessing platforms for telehealth.” Participants A, H, I, Q, and T reported issues with unreliable internet service, which impacted their access to telehealth. Participant R stated, “It was a bit expensive to have internet.” Participant N stated they experienced issues with “the cost (of the internet); at times, you don’t have internet.” Participant E said, “I think with Zoom, it’s really difficult at times with the connection. There are times it’s really difficult also to install so I found it a bit challenging.”

Participants exhibited a range of preferences regarding the telehealth services they used. Zoom was the most used (19 respondents), followed by Teams (11), phone calls

(9), Skype (4), WhatsApp (3), Google Meet (3), and general video calls (3). Most participants preferred Zoom over other telehealth platforms they had used.

Summary

In Chapter 4, I discussed data collection processes, including the setting, participant demographics, data analysis, trustworthiness, and the results. Four themes (getting a heart failure diagnosis, managing newly diagnosed heart failure during the pandemic, experiences with telehealth, and access issues) emerged from the data. They were instrumental in addressing the research question:

RQ: What are the self-management experiences of heart failure patients who received telehealth services during the COVID-19 pandemic?

The participants' descriptions of their experiences, articulated in their own words, served as the foundation for theme development. As noted earlier, the interviews were semi-structured and featured open-ended questions. While each participant was asked the same core questions, individualized probing questions were tailored to their responses. Conducting one-on-one interviews fostered a fully engaged environment, enabling participants to feel comfortable, open, and honest about their experiences without the added pressures or influences from me or other participants.

The participants all reported being diagnosed with heart failure since the start of the COVID-19 pandemic, with many finding it difficult to manage their condition. Telehealth was viewed overwhelmingly positively, but some participants reported experiencing access issues. Chapter 5 will present my interpretation of the findings, outline the research limitations, offer recommendations for future research and will explore potential implications for positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to explore the experiences of heart failure patients who managed their medical condition while receiving care through telehealth services (e.g., phone calls, video consultations, remote monitoring, etc.) in the United States. I conducted a qualitative study using a descriptive phenomenological approach as outlined by Colaizzi to analyze my data. This method was chosen because it focused on understanding individuals' lived experiences, providing insight into participants' perceptions and attitudes toward telehealth, rather than offering an external, objective analysis by the researcher. I conducted the study because, before the COVID-19 pandemic, telehealth was rarely used in the United States. Therefore, little was known about patient experiences using telehealth services in the United States. I interviewed participants from across the United States. Each participant received some version of telehealth services since the start of the pandemic. The study findings were organized into four main themes: getting a heart failure diagnosis, managing newly diagnosed heart failure during the pandemic, experiences with telehealth, and access issues.

Interpretation of the Findings

This study extended prior knowledge from peer-reviewed literature. I used Pender's HPM as the framework for my research (Pender et al., 2011). This theory emphasizes addressing the individual needs of the patient rather than simply managing their diagnosis. The HPM emphasizes holistic care, recognizing that people are complex, multifaceted beings whose environment has a significant influence on their well-being

(McEwin & Wills, 2014). My study revealed that while most participants found telehealth easy to use, access to care was an issue for some due to technological or cost factors.

The first theme identified while interpreting the study data was 'Getting a Heart Failure Diagnosis,' which described participants' experiences of receiving a heart failure diagnosis during the lockdown phase of the COVID-19 pandemic. None of the participants in this study had a diagnosis of heart failure prior to the COVID-19 pandemic; all had been diagnosed with heart failure at some point during the pandemic. My study focused on the experiences of individuals during the pandemic, leading to an incidental observation that, although all participants had a diagnosis of heart failure, each had received this diagnosis coincidentally with the onset of the pandemic. While there have been many studies regarding telehealth and chronic health conditions, including heart failure, none of those studies identified this theme. Wali et al (2021) also studied heart failure telemonitoring since the start of the pandemic in Canada. However, their sample comprised not only patients but also clinicians and program staff, and the study concentrated on a specific telehealth program, namely the Medley smartphone application. While the research aimed to recruit patients who had utilized the Medley program both before and after the pandemic, eligibility was restricted to those who had either used Medley prior to the pandemic or had engaged with the app for at least 20 days after the onset of the pandemic (Wali et al., 2021). The study did not address how long the participant had had a heart failure diagnosis. Kerr et al. (2020) also studied heart failure patient care using telehealth in Great Britain, with their inclusion criteria limiting participants to heart failure patients who were post-discharge or patients at risk for clinical deterioration. This study also did not address how long the participant had had a heart failure diagnosis. Ware et al. (2022) conducted a study prior to the pandemic to evaluate the experiences using telemonitoring; however, their participants included both patients and providers. The participants were not limited to patients with heart failure but also included patients with other chronic health conditions like diabetes and hypertension. The study did not identify when a participant was diagnosed with heart failure.

The second theme that emerged from the data analysis was Managing Newly Diagnosed Heart Failure During the Pandemic. Prior to this study, no studies were identified that addressed newly diagnosed heart failure that occurred during the pandemic. Cannata et al. (2024) examined the quality of care for heart failure patients in England during the pandemic, focusing on inpatient rates and types of care. They found that patient characteristics remained consistent before, during, and after the pandemic. Similarly, Koonin et al. (2020) reported that use of telehealth in the U.S. increased during the pandemic, improving access to care and reducing disease exposure by enabling remote patient management and lowering in-person healthcare visits.

The third theme that emerged from the data analysis was Participants' Experiences with Telehealth. In comparison, the study by Beamish et al (2023) focused on the perspectives of diabetic patients in Canada who received telehealth services to manage their diabetes during the pandemic. That study had similar results to my research, finding most participants perceived the care they received via telehealth to be as good as the care received in person, except for physical assessments. Participants found the cost, time spent, and lack of necessary travel highly favorable (Beamish et al, 2023). Additionally, 83% of study participants rated the care they received via telehealth as very satisfied or satisfied (Beamish et al, 2023).

The fourth theme that emerged during the study was Access Issues. Many participants reported no issues with using telehealth. Dillon et al. (2024) conducted a study on the telehealth experiences of orthotic and prosthetic providers to determine why many clinical facilities have reverted to in-person modes of care as COVID-19 restrictions have eased. The study was conducted to explore the perspectives of orthotists and prosthetists on the barriers and facilitators influencing the use of telehealth in the United States (Dillon et al., 2024). The study found that poor phone and internet connections, as well as a lack of access to technology, were barriers to using telehealth; however, once these barriers were addressed, telehealth became feasible (Dillon et al., 2024). Koonin et al. (2020) also found that limited internet access, a lack of smart devices such as smartphones, tablets, or computers, and a lack of familiarity with technology may be barriers for some patients.

Limitations of the Study

The study had several limitations. First, it was limited to a virtual platform (Zoom) for conducting interviews and collecting data. Interviews were conducted virtually to include experiences from across the United States. The first three interviews were scheduled initially in Microsoft Teams; however, there were issues with participants being unable to join the meeting. Since IRB approval allowed interviews to take place via phone or online platform of the volunteer’s preference, all meetings were then switched to Zoom, and all participants were able to enter the meeting without incident. Second, none of the participants chose to participate via video, which was offered as an option but not required for participation. All participants were given the option to appear on camera; however, none opted to be on video, instead electing for audio-only interviews. Third, although this study was open to all genders, all participants self-identified as female. The lack of male participants may mean that issues of concern that might emerge from male participants are not represented in the study. Fourth, all participants were relatively young, ranging from 30-47 years of age, which was unexpected. The lower age of the participants may reflect their comfort levels with using technology to receive care. The age range of the participants means that data about individuals over 50 years of age is missing. Therefore, it was impossible to draw conclusions about the widespread use of telehealth in the demographic typically associated with heart failure. Fifth, all participants were diagnosed with heart failure after the beginning of the pandemic, leading participants to cope with unfamiliar technology while adjusting to a new diagnosis, which may have led to potential participants not joining the study.

Maintaining trustworthiness was a priority throughout the research process. I focused on the participants' discussions, perceptions, and experiences, drawing upon this data to offer meaningful insights into the research questions. I ensured that the participants' own words guided the interpretation of the findings and used a reflective journal to examine my thoughts and emotions throughout the study. I made a conscious effort to refrain from personal judgment, to mitigate implicit and explicit bias to prevent influencing participants' responses or the integrity of the research.

Recommendations

Several recommendations are made for future research. First, future research should include participants over the age of 50. As stated in Chapter 1, heart failure tends to be a condition more common in the older population, who are less likely to be adept at using or educated in technology and may not have access to smart devices (Liu & Lampert, 2022). Second, future research should include participants of all genders, as male participants' perceptions and experiences may differ from those presented in the current study's findings. Third, future research should consist of participants who are not newly diagnosed with heart failure. Patients who are more experienced at managing heart failure may have a different experience with managing their condition via telehealth than someone who is newly diagnosed. Fourth, future research should include participants with co-morbidities to determine if those participants have similar experiences using telehealth to manage their conditions.

Another finding of the current study, strongly supported by previous research, is that participants have had positive experiences utilizing telehealth to manage their heart failure diagnosis. Incorporating telehealth as an option for patients to access care can enable those who who are homebound to obtain needed care and improve their health outcomes.

Implications

The current study has the potential to positively impact social change by helping healthcare providers in the United States understand their patients' experiences with telehealth and their perceptions of how telehealth affects their ability to manage their condition independently. Findings from my study can also contribute to positive social change by providing a better understanding of patient experiences with a variety of telehealth services, thus allowing healthcare providers to customize services to meet the needs of individual patients and improve the patient experience, which can ultimately affect not only clinical outcomes but also the patients' quality of life.

The participants expressed how telehealth helped them access the care they needed during the shutdown and pandemic restrictions, which prevented them from visiting the emergency room. Additionally, participants found telehealth to be convenient and effective. The participants utilized a wide range of telehealth services, with the majority preferring Zoom.

Conclusion

In this digital age, there are numerous options to access the healthcare we need. Before the COVID-19 pandemic, telehealth was not commonly used in the United States (Shaver, 2022). The pandemic and its resulting shutdown and restrictions forced this to change, and we were unprepared (Shaver, 2022).

Since the COVID-19 pandemic, telehealth in the United States has experienced significant growth and evolution (Shaver, 2022). Post-pandemic, telehealth is an increasingly popular option for accessing healthcare services. Most large health systems and medical practices offer patient portals, enabling patients to communicate with their providers for non-emergent concerns. Many providers provide telehealth visits for patients who are ill and cannot visit the office for care (Koonin et al., 2020).

This study provided insights into the lived experiences of heart failure patients navigating telehealth-based self-management during the unprecedented conditions of the COVID-19 pandemic. By employing Colaizzi's (1978) descriptive phenomenological method, this research provides a patient-centered perspective on the experiences of heart failure patients managing their disease via telehealth medical services. The emergence of four key thematic structures contribute to the growing body of qualitative health research by identifying critical psychosocial, technological, and systemic factors influencing chronic disease self-management in a telehealth context. Moreover, the unexpected and uniform finding that all participants had been diagnosed with heart failure since the onset of the pandemic introduces a previously undocumented phenomenon. This temporal clustering raises important questions about diagnostic trends, healthcare access, and possible pandemic-related stressors or delays in care that may have influenced disease onset or detection. These are questions that merit urgent attention from clinicians, policymakers, and health systems researchers.

The findings from this study are significant because they document a shift in the lived experience of chronic illness under pandemic conditions, highlight the evolving role of telehealth in chronic disease care, and identify a potentially underrecognized cohort of newly diagnosed patients whose needs may differ substantially from those of pre-pandemic populations. The findings have implications for designing more responsive telehealth interventions, informing health policy, and guiding future longitudinal research in post-pandemic healthcare delivery models.

References

Beamish, P., McNeill, K., Arnaout, A., & Malcolm, J. (2023). Patient perspectives on virtual care for diabetes management in the era of COVID-19. *Canadian Journal of Diabetes*, *47*(8), 636–642. https://doi.org/10.1016/j.jcjd.2023.07.001

Colaizzi, P.F. (1978). Psychological research as a phenomenologist views it. In R. S. Valle & M. King (Eds.), *Existential-phenomenological alternatives for psychology* (pp. 48-71). Oxford University Press.

Creswell, J. W., & Creswell, J. D. (2018). *Research design. qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Dillon, M., Ridgewell, E., Clarke, L., Bishop, K., & Kumar, S. (2024). Exploration of the barriers and facilitators influencing use of telehealth for orthotic/prosthetic services in the United States of America: An orthotist/prosthetists perspective. *PLoS ONE*, *19*(10), 1–26. https://doi.org/10.1371/journal.pone.0309194

Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2019). An overview of the qualitative descriptive design within Nursing Research. *Journal of Research in Nursing*, *25*(5), 443–455. https://doi.org/10.1177/1744987119880234

Health Resources Services Administration. (2022). *What is telehealth?* https://www.hrsa.gov/telehealth/what-is-telehealth

Kerr, B., Pharithi, R. B., Barrett, M., Halley, C., Gallagher, J., Ledwidge, M., & McDonald, K. (2020). Changing to remote management of a community heart failure population during COVID-19 – Clinician and patient perspectives'. *IJC*

Heart & Vasculature, *31*. https://doi.org/10.1016/j.ijcha.2020.100665

Koonin, L. M., Hoots, B., Tsang, C. A., Leroy, Z., Farris, K., Jolly, B., Antall, P., McCabe, B., Zelis, C. B. R., Tong, I., Harris, A. M., & Jolly, T. (2020). Trends in the use of telehealth during the emergence of the COVID-19 pandemic - United States, January-March 2020. *MMWR: Morbidity & Mortality Weekly Report*, *69*(43), 1595–1599. https://doi.org/10.15585/mmwr.mm6943a3

Liu, E., & Lampert, B. C. (2022). Heart failure in older adults: Medical management and advanced therapies. *Geriatrics*, *7*(2), 36. https://doi.org/10.3390/geriatrics7020036

Mayo Clinic. (2022). *Heart failure.* Retrieved April 27, 2022, from https://www.mayoclinic.org/diseases-conditions/heart-failure/symptoms-causes/syc-20373142

McEwin, M., & Wills, E.M. (2014). *Theoretical basis for nursing*. (4th ed.). Wolters Kluwer Health.

Multiple Chronic Conditions. (2022). *Self-management in chronic conditions.* Retrieved April 27, 2022, from https://multiplechronicconditions.org/guidelines/self-management/

Pender, N.J., Murdaugh, C. L., & Parsons, M.A. (2011). *Health promotion in nursing practice* (6th ed.). Pearson.

Radhakrishnan, R. (2021). *Epidemic vs. pandemic: Is COVID-19 a pandemic?* MedicineNet. Retrieved April 28, 2022, from https://www.medicinenet.com/difference_between_an_epidemic_and_a_pandemi c/article.htm

Ravitch, S. M., & Carl, N. M. (2021). *Qualitative research: Bridging the conceptual, theoretical, and Methodological*. Sage.

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing. The art of hearing data*. SAGE.

Sabatier, R., Legallois, D., Jodar, M., Courouve, L., Donio, V., Boudevin, F., De Chalus, T., Hauchard, K., Belin, A., & Milliez, P. (2022). Impact of patient engagement in a French telemonitoring programme for heart failure on hospitalization and mortality. *ESC Heart Failure, 9*(5), 2886–2898. https://doi.org/10.1002/ehf2.13978

Saldana, J, (2016). *The Coding Manual for Qualitative Researchers*. SAGE.

Shaver, J. (2022). The state of telehealth before and after the COVID-19 Pandemic. *Primary Care: Clinics in Office Practice, 49*(4), 517-530. https://doi.org/10.1016/j.pop.2022.04.002

Sloan, A., & Bowe, B. (2014). Phenomenology and hermeneutic phenomenology: The philosophy, the methodologies, and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity: International Journal of Methodology*, *48*(3), 1291–1303. https://doi.org/10.1007/s11135-013-9835-3

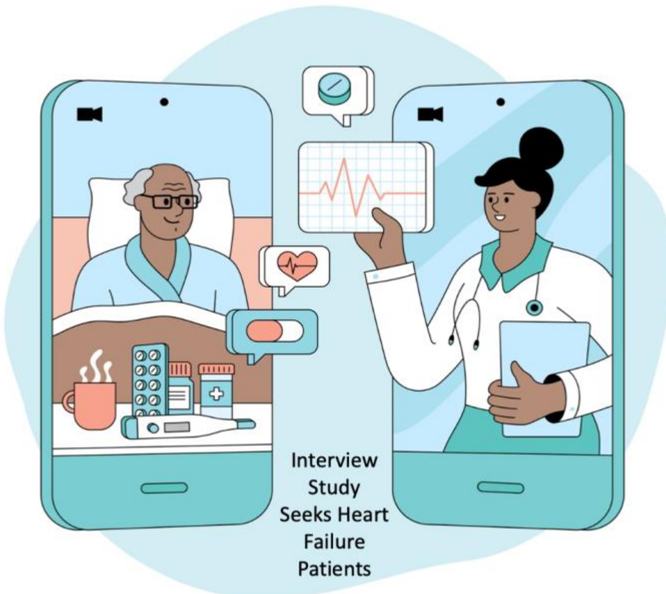
Wali, S., Guessi Margarido, M., Shah, A., Ware, P., McDonald, M., O'Sullivan, M., Duero Posada, J., Ross, H., & Seto, E. (2021). Expanding telemonitoring in a virtual world: A case study of the expansion of a heart failure telemonitoring program during the COVID-19 pandemic. *Journal of Internet Medical Research, 23*(1). https://doi.org/10.2196/26165

Ware, P., Shah, A., Ross, H. J., Logan, A. G., Segal, P., Cafazzo, J. A., Szacun-Shimizu, K., Resnick, M., Vattaparambil, T., & Seto, E. (2022). Challenges of telemonitoring programs for complex chronic conditions: Randomized controlled trial with an embedded qualitative study. *Journal of Medical Internet Research, 24*(1), e26165. https://doi.org/10.2196/31754

Wilson, J., Heinsch, M., Betts, D., Booth, D., & Kay-Lambkin, F. (2021). Barriers and facilitators to the use of e-health by older adults: A scoping review. *BMC Public Health*, *21*(1), Article 1556. https://doi.org/10.1186/s12889-021-11623-w

Yu, J., Kielhorn, A., McNeil-Posey, K., Mungin, B., Xia, Y., Erler, W., Kurukulasuriya, N. C., Murdoch, J., Martin, M., & Martin, E. (2025). Characterizing Patient Diversity via Healthcare Access Determinants: A New Approach for Measuring Improvements in Clinical Trial Diversity in the United States. *Advances in Therapy*, *42*(4), 1965–1978. https://doi.org/10.1007/s12325-025-03140-8

Appendix A: Social Media Invitation



There is a new study about the experiences of people with heart failure that could help care providers like doctors and nurses better understand and help their patients. For this study, you are invited to describe your experiences using telehealth services.

About the study:

- One 30-60 minute phone or Zoom interview that will be audio recorded (no video recording)
- You would receive a $20 Target gift card as a thank you
- To protect your privacy, the published study will not share any names or details that identify you

Volunteers must meet these requirements:

- 18 years old or older
- Live in the United States
- Have a diagnosis of heart failure
- Used telehealth since the COVID-19 Pandemic

This interview is part of the doctoral study for Christie Devine, a Ph.D. student at Walden University. Interviews will take place during June.

Please message Christie privately to let her know of your interest.