Using Motivational Interviewing to Improve Self-care in Adults with Congestive Heart Failure

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Congestive heart failure, also called heart failure (CHF, HF), is one of the most common reasons for hospitalization in the United States (Blecker et al., 2013). According to the Mayo Clinic (2020), heart failure occurs in the body when the heart muscle cannot pump blood as it should. This diagnosis manifests as shortness of breath, edema in the lower legs, lowered ejection fraction, and activity intolerance. The shortness of breath, edema, and other manifestations then increase a patient's risk for falls, lead to an inability to perform activities of daily living (ADLs), increase stress and depression, and increase the likelihood of hospitalization and death (Mayo Clinic, 2020).

Readmission risk is a way to infer quality hospital care. The Centers for Medicare and Medicaid Services incentivize the reduction of preventable readmissions for certain health conditions, including heart failure readmissions (Khera & Krumholz, 2018). Approximately 20% of Medicare beneficiaries are readmitted to the hospital within 30 days of discharge, and these readmissions cost more than $15 billion per year (Bradley et al., 2013).

One way to improve heart failure management and reduce readmissions is through self-care (Swiatoniowska-Lonc et al., 2021). Self-care includes maintenance, symptom perception, and management (Riegel et al., 2016).

Problem Statement

The critical question is, how can the health care system reduce hospitalization risk for HF patients? The problem is high readmission rates for CHF patients. One way that heart failure readmissions can be managed is through self-care. Self-care is an active, deliberate decision-making process influencing outcomes (Reigel et al., 2016). However, how do we get patients to

participate in self-care? Motivational interviewing (MI) is one method to help encourage and motivate patients to engage in self-care. MI is client-centered counseling, cognitive behavioral therapy, and social cognitive therapy to assess a patient's readiness to change behavior and helps to develop strategies towards taking action to change behavior through relationship building, expressing empathy, and supporting self-efficacy (Masterson Creber et al., 2015). MI effectively increases self-care participation, reducing 30-day readmission rates (Chair et al., 2014). This quality improvement project aims to increase patient participation in self-care through behavior change using motivational interviewing strategies.

PICO Question

The PICO question for this MSN quality improvement proposal focuses on the problem of lack of patient interest to participate in self-care using motivational interviewing. This proposal offers evidence to answer the question: In adult patients diagnosed with heart failure (P), does motivational interviewing (I), as compared to not using motivational interviewing (C), improve self-care? (O)

Background and Significance

According to the Centers for Disease Control and Prevention (2020), heart failure was mentioned on 379,800 death certificates in 2018. Between 2000 and 2010, there were approximately 1 million hospitalizations for CHF. In 2012, an estimated 5.8 million people in the United States had been diagnosed with heart failure (Hall et al., 2012). Agarwal et al. (2021) found that 8,273,270 hospitalizations were a primary diagnosis of HF, and 1,269,109 had two or more HF hospitalizations.

Nair et al. (2020) published that heart failure is the leading cause of 30-day-rehospitalization rates in medical and surgical conditions and accounts for up to 26.9% of total

readmissions. Hospitalization and readmissions account for significant hospital spending and an increased burden on the healthcare system. Nair et al. (2020) additionally stated that heart failure is responsible for an annual cost of approximately $30.7 billion, and the total cost is projected to rise to an estimated $53 billion by 2030. Heart Failure also contributes to significant mortality. Only 30-40% of patients survive for as long as one year after being hospitalized for HF. The 30-day readmission rate for HF has been reported to be approximately 23%. Readmissions significantly distress the patients and increase the burden on the healthcare system. Addressing and managing heart failure will reduce an individual's risk for hospitalization, thereby reducing catastrophic outcomes and decreasing costs for organizations.

According to Reigel et al. (2016), self-care is grouped into three separate but related ideas and processes that patients should master to manage their heart failure. The first process is maintenance. This process includes treatment adherence, exercising, and following a salt-restricted diet. The second process involves symptom perception and the detection of physical sensations and being able to interpret what they mean regarding a person's heart failure symptoms. The third process involves management. In other words, what the patient will do in response to symptoms when they occur. This idea of self-care can be measured by the Self-care of Heart Failure Index Tool (SCHFI version 7.2) (Reigel, 2018). This tool is a 39-question questionnaire consisting of four sections that ask patients to score themselves on a never-to-always scale regarding behaviors, monitoring, controlling symptoms, and confidence in their ability to keep themselves stable and follow their treatment plan (Reigel, 2018).

Motivational interviewing (MI) is a method that was first developed in 1983 by Miller as an alternative to the medical model to promote behavior change among problem drinkers.

It has since been widely used and developed for substance use and other problem behaviors and diseases such as obesity, diabetes, and cardiovascular disease (Brodie et al., 2008).

Motivational interviewing (MI) operates on the belief that individuals grappling with problematic behaviors exist at varying stages of readiness to change. MI recognizes that people are often conflicted about making changes and may resist compliance with their care. By employing a person-centered and goal-oriented communication style, MI aims to elicit expressions of change and increase personal motivations and commitments to behavior change in an atmosphere of acceptance and empathy. MI is an effective approach that prioritizes creating a supportive and empathetic environment rather than coercing individuals to change against their will. It emphasizes the importance of building a trusting and collaborative relationship devoid of condescending attitudes (Bischof et al., 2021).

Evidentiary Support for Motivational Interviewing

Motivational interviewing has been demonstrated to impact self-care behaviors positively. Multiple studies have provided evidentiary support for the effectiveness of motivational interviewing in improving patient outcomes and promoting healthier behavior.

According to Cui et al. (2019), 96 patients in eastern China were delivered a structured education plan that included a detailed exercise plan, scheduled follow-up phone calls, praise, and education regarding measuring blood pressure, pulses, daily weights, and fluid intake. This educational plan was associated with improved self-care behaviors and reduced hospital readmission.

Another trial showed that MI successfully improved self-care in a study of 118 people at specialized heart failure clinics in Brazil and Uruguay. The multicentric

randomized clinical trial participants were consulted three times at 30-day intervals. The MI group showed a significant increase in self-care behaviors than those who did not receive MI (Flores et al., 2019).

Reigel et al. (2017) conducted a single-blinded, randomized controlled trial to investigate the effectiveness of MI techniques in improving self-care behaviors among adults with chronic HF. The study utilized the Self-Care of HF Index to measure the outcome, which involved 41 patients in two phases for qualitative and quantitative data analysis. The results demonstrated that MI techniques successfully promoted self-care behaviors in this population.

Barriers to Intervention Implementation

Introducing a new intervention can come with its fair share of challenges that could impede its successful implementation. For instance, motivational interviewing may face hurdles stemming from the perception that it is time-consuming, leading to inadequate time allocation. Additionally, the lack of competency, experience, or training regarding motivational interviewing among those tasked with implementing it could pose a potential obstacle (Hatch et al., 2021).

Introduction of Theory

Motivational interviewing offers a new evidence-based practice to engage heart failure patients in self-care to improve patient outcomes and reduce the rate of hospitalizations. A change in their behavior is required to increase the odds of these patients participating in self-care. The advanced practice registered nurse (APRN) can implement the transtheoretical model and the temporal self-regulation theory to assist patients with

behavioral change. This model and theory can serve as a framework for this project, which will help to answer the PICO question.

Understanding the transtheoretical model (TTM) and the temporal self-regulation theory (TST) can give advanced practice registered nurses (APRNs) the tools and understanding to assist their patients with behavioral changes and include self-care in their daily routine. According to Hall and Fong (2015), the temporal self-regulation theory can help the APRN understand the executive function needed for behavior change. Likewise, Eshah (2019) states that the transtheoretical model can help the APRN understand change stages, and both theories provide a framework for developing an individualized care plan and promoting behavior change.

Transtheoretical Model

According to LaMorte (2019), the transtheoretical model (TTM) is a model of intentional change developed in the late 1970s and focuses on an individual's decision-making process. The TTM assumes people do not change behaviors quickly or resolutely but instead cycle through different stages of change (LaMorte, 2019). The stages include pre-contemplation, contemplation, preparation, action, maintenance, and termination (LaMorte, 2019).

LaMorte (2019) indicates that in the pre-contemplation stage, individuals are often unaware of a needed change in behavior. During the contemplation stage, the individual becomes aware that a behavior change is necessary, and more thoughtful consideration towards change begins, but still feels ambivalent about the change (LaMorte, 2019). Preparation begins when people are ready to act and take small steps toward the needed change. The next stage in the process is the action stage, which indicates they have changed

their behavior (LaMorte, 2019). LaMorte (2019) indicates that in the maintenance stage, behavior has been changed for six months or more before the final stage of termination occurs. Within this last and final stage, LaMorte (2019) indicates the individual discovers they have no desire to return to unhealthy behaviors and is sure they will not relapse; however, the termination stage is rarely reached.

Temporal Self-Regulation Theory

According to Hall & Fong (2013), the temporal self-regulation theory (TST) explains individual health behaviors. This theory suggests three determinants of behavior: intention, prepotency, and executive function (Hall & Fong, 2013). These three behaviors are controlled by environmental context and become essential when performed in less-than-ideal conditions (Hall & Fong, 2013).

According to Hall & Fong (2013), intention is determined by an individual's beliefs and values on the associated behavior. Prepotency includes the frequency of past performance, habits, social norms, and cues to action, which is difficult to assess (Hall & Fong, 2013). The last of the three determinants is executive function, a cognitive process that enables introspective control over a person's behavior, thoughts, and emotions (Hall & Fong, 2013).

Theories' Influence on Advanced Practice of Nursing

When TTM is applied to practice, the APRN can assist in developing a reliable framework for self-change or professionally assisted change, which benefits the individual seeking change (Raihan & Cogburn, 2022). Advanced practice registered nurses can use the TST model to aid in implementing health promotion, which will improve patient outcomes.

According to Hall & Fong (2013), the APRN can help individuals self-regulate undesired and desired behaviors, enhance intention by encouraging people to become future-oriented, bring attention to a person's here-and-now attitude, and help patients recognize and navigate their triggers toward undesired behavior.

Theoretical Framework Analysis

The two theories chosen as the framework for this project are the transtheoretical model (TTM) and the theory of temporal self-regulation (TST). According to Reigel et al. (2016), self-efficacy has a powerful influence on self-care decisions. Heart failure patients with higher levels of self-efficacy report better levels of self-care. Implementing these two theories allows the advanced practice nurse to assist the patients in making positive changes to their behaviors and improving their health. The TTM and TST look at strategies that, if implemented, may help individuals make positive changes (Raihan & Cogburn, 2022).

Theoretical Contribution to the APRN Profession

Motivational interviewing may be an important component for patients with heart failure and may reduce hospitalizations, improve patient outcomes for heart failure, and increase the quality of life (Chair et al., 2014). Self-care behaviors by patients are crucial when treating illnesses. When advanced practice nurses apply TST, they see the relationship between motivation and self-care (Chew et al., 2019).

Motivational interviewing (MI) is a counseling approach incorporating the transtheoretical behavior change model. This model is designed to assess a patient's readiness to change their behavior and develop appropriate strategies to help them act towards changing their

behavior. MI also integrates the concepts of relationship building from humanistic therapy with active strategies tailored to the different stages of change (Masterson-Creber et al., 2015).

Theories Implications to Guide Personal APRN Practice

Implementing these two theories gives the advanced practice nurse guiding principles to assist clients in making changes to improve their health. By understanding how a person goes through the stages of change as the plan of care is formulated, the care plan can be tailored to meet the patient's needs. The advanced practice nurse can help the patient navigate the stages of change and implement better self-care practices (Raihan & Cogburn, 2022).

According to Eshah (2019), the advanced practice nurse can evaluate a person's readiness for change by assessing the stage of change of the TTM the patient is in. Eshah (2019) applies this to physical activity and indicates that people are not ready for change if they are not in the contemplation stage. Therefore, the health care provider must work with the patient to help them into the contemplation stage. Raihan and Cogburn (2022) add that APRNs can personalize treatment plans that are fluid and dynamic, and the treatment plan should allow for the possibility of recycling stages and focus on the end goal of change and application of self-care behaviors.

The advanced practice nurse must understand the stages of change, executive functioning, and what is required of a patient to change their behavior. Implementing the TTM and TST to assist patients with HF with behavior change through motivational interviewing may encourage patients to participate in self-care, improving outcomes and decreasing hospitalizations.

Literature Search

A literature search was conducted to determine the impact of motivational interviewing on self-care in patients with heart failure. Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library, and Pub Med databases were used. The following search terms: "Heart Failure AND Self-care" yielded 898 results. An additional search term for motivational interviewing was added, narrowing down the results to 12 articles. The search was narrowed down to studies that utilized a screening tool to evaluate the effectiveness of motivational interviewing on self-care, for example, the Self-Care in HF index tool and the Motivational Interviewing Tailored Interventions for Heart Failure (MITI-HF) tool and the Kansas City Cardiomyopathy Questionnaire (KCCQ), as well as access to the full text of the article. Only peer-reviewed studies within the past ten years were included. The final search yielded four total studies (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021; Riegel et al., 2017).

Definitions

This project will use the following definitions:

1) *Heart Failure:* A clinical syndrome characterized by cardiac abnormalities, elevated natriuretic peptide levels, and evidence of pulmonary or systemic congestion (Gibson et al., 2021).

2) Self-care: A natural decision-making process involves choosing behaviors that maintain physiological stability and responding to symptoms as they occur (Riegel et al., *2016).*

3) Self-Care in HF Index (SCHFI): A 39-item questionnaire measuring self-care on three scales: maintaining behaviors for heart failure stability, monitoring symptoms, and responding to symptoms in the previous 30 days (Riegel et al., 2019).

4) Kansas City Cardiomyopathy Questionnaire (KCCQ): a 23-item, self-administered questionnaire to evaluate the patient's perception of their health status that addresses heart failure symptoms, impact on physical and social function, and how heart failure impacted their quality of life in the previous two weeks (Rebora et al., 2021).

5) New York Heart Association (NYHA) Classification of Heart Failure: A classification of heart failure based on symptom severity and the amount of exertion needed to provoke symptoms classified by class I to class IV. Class I- no limitations on physical activity; class II- slight limitations on physical activity, in which ordinary physical activity leads to fatigue, palpation, or dyspnea. The person is comfortable at rest; class III-marked limitation of physical activity, in which less than ordinary activity results in fatigue, palpation, or dyspnea. The person is comfortable at rest; class IV- inability to carry on any physical activity without discomfort but also symptoms of heart failure at rest, with increased discomfort if any physical activity is undertaken (American Heart Association, 2017).

6) Heart Failure Somatic Perception Scale (HFSPS): a tool to assess the presence and severity of 18 common signs and symptoms of heart failure, such as edema, chest pain, shortness of breath, and its effect on activities carried out daily by a person (Pucciarelli et al., 2019).

Literature Review

After reviewing the literature, several important themes were identified in supporting the PICO question related to self-care improvement. One major theme that emerged was motivational interviewing to enhance self-care. Another theme was the improvement in self-care and the methods used to measure progress. These themes are significant because they have the potential to impact the health outcomes of adult patients with heart failure. Therefore, delving

deeper into these themes can provide valuable insight into improving outcomes, increasing self-care behaviors, and lowering readmission rates for heart failure patients most effectively.

Motivational interviewing

All studies selected used motivational interviewing (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021; Riegel et al., 2017). Studies enrolled a total of 971 subjects. All studies were randomized controlled trials, and all studies were blinded. Two studies (Flores et al., 2019; Rebora et al., 2021) were multicentered, while two (Masterson Creber et al., 2016; Riegel et al., 2017) were single-centered. Three studies divulged their inclusion or exclusion criteria (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021), while one study did not discuss how they included or excluded study participants (Riegel et al., 2017). Of the three studies that included their inclusion or exclusion criteria (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021), two studies used the NYHA classification III-IV (Masterson Creber et al., 2016; Rebora et al., 2021). One study included participants classified as NYHA I-III (Flores et al., 2019). These three studies also excluded study participants with cognitive impairment (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021). All studies used nurses to conduct follow-up and motivational interviewing; all interviewers were trained in motivational interviewing. Only one study (Masterson Creber et al., 2016) discussed what follow-up their control group received. Collectively, the studies followed subjects for 60 days (Flores et al., 2019), 90 days (Masterson Creber et al., 2016; Riegel et al., 2017), and 12 months (Rebora et al., 2021). Additionally, Masterson Creber et al. (2016), Rebora et al. (2021), and Riegel et al. (2017) had an initial home visit followed by three to four follow-up phone calls throughout the study time. In comparison, Flores et al. (2019) had participants follow up in the center.

According to studies conducted by Flores et al. (2019), Rebora et al. (2021), and Riegel et al. (2017), helping people make decisions for behavioral change can be a significant challenge. The authors noted that various factors, including physiological, spiritual, social, and psychological needs, can reduce the subjects' intrinsic motivation. However, motivational interviewing (MI) techniques can be useful in promoting goal setting and building the subjects' perception of their ability to overcome barriers. The studies also found that MI significantly improved disease-specific quality of life over time, with the subjects' scores improving later in the studies.

Longer study time frames may lead to better follow-up and improved self-care. It would be beneficial for all studies to include information about the care provided to their control group as standard care and follow-up (Riegel et al., 2017). Moreover, face-to-face follow-up may enhance self-care behaviors, compared to telephone calls (Masterson Creber et al., 2016; Riegel et al., 2017; Rebora et al., 2021). None of the studies offered an analysis of sample size or a time frame for following the subjects, affecting the robustness of the evidence.

Improved Self-care

All studies concluded that there were clinical or statistical improvements in self-care at the end of their trial periods (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021; Riegel et al., 2017). While three studies reported more robust statistical data, including *p*-value, confidence interval, mean, and standard deviation (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021), one study did not include any statistical data to support its claims (Riegel et al., 2017). Two studies reported improved self-care results in maintenance, management, and confidence using the SCHFI (Flores et al., 2019; Masterson

Creber et al., 2016). One study (Rebora et al., 2021) reported improvements in the KCCQ with a statistically significant improvement. The study also found that including caregivers during motivational interviewing increased the KCCQ score. However, Rebora et al. (2021) recommended further research to explore the effects of motivational interviewing on sleep quality and reducing depression and anxiety. Masterson Creber et al. (2016) reported no statistically significant change over the study period in the SCHFI or KCCQ. Still, they reported clinically significant changes after adjusting for confounding factors using the control group's Heart Failure Somatic Perception Scale (HFSPS).

All studies concluded a significant improvement in self-care maintenance (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021; Riegel et al., 2017). Rebora et al. (2021) concluded that the domains of self-care that were most improved were self-efficacy, symptom stability, and overall summary scores, meaning that the intervention impacted the patient's belief that they can perform and continue to perform in the specific self-care behaviors measured. Riegel et al. (2017) concluded that the participants had improved self-care maintenance in diet adherence and symptom monitoring and awareness.

The process of reporting statistical data is of utmost importance in ensuring the credibility and reliability of a study. Failure to report such data can significantly undermine the strength of the evidence presented (Riegel et al., 2017). The studies that offered a stronger statistical analysis offered stronger evidence to support the invention of motivational interviewing to improve self-care (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021).

Tools to Measure Self-care

All studies used the Self-care in Heart Failure Index (SCHFI) tool. Three studies used the SCHFI to measure their outcome (Flores et al., (2019); Masterson Creber et al., (2016); Riegel et al., (2017)). Rebora et al. (2021) used the SCHFI as inclusion criteria but used the Pittsburgh Sleep Quality Index, the 12-item Short Form Health Survey, and the Kansas City Cardiomyopathy Questionnaire (KCCQ) to measure their results. Masterson Creber et al. (2016) also measured QoL with the KCCQ and included the reliability and validity of the tools they used, while Flores et al. (2019), Riegel et al. (2017), and Rebora et al. (2021) did not.

Three studies (Flores et al., (2019); Masterson Creber et al., (2016); Riegel et al., (2017)) did not offer any conclusions regarding the effectiveness of their selected tools to measure self-care or analysis of why these tools were chosen over others. Rebora et al. (2021) offered that they chose to use the overall summary score of the KCCQ because it includes four of the six domains of the KCCQ. The authors did not state why they chose the other tests they used (PSQI, SF-12). Riegel et al. (2017) and Masterson Creber et al. (2016) reported that an eight-point improvement in the SCHFI scale is judged as a clinically meaningful improvement, while none of the other studies offered how they measured improvement (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021).

According to Heidenreich et al. (2022), in the 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure report, a heart failure-specific health assessment such as the Kansas City Cardiomyopathy Questionnaire (KCCQ) is preferable as a measurement tool because it is one of the tools that is more sensitive to changes in disease status and more responsive to heart failure therapy than generic health status measures.

Research studies indicate that three reliable and valid instruments are available to assess and measure the symptoms and self-care practices in patients with heart failure: the Heart Failure Somatic Perception Scale (HFSPS), the Self-care in Heart Failure Index (SCHFI), and the Kansas City Cardiomyopathy Questionnaire (KCCQ). Pucciarelli (2019) reported that the Heart Failure Somatic Perception Scale (HFSPS) is a psychometrically sound instrument with statistically significant validity and reliability. Similarly, Riegel et al. (2019) found that the Self-care in Heart Failure Index is valid and has a reliability of with a Cronbach's alpha value of 0.70 or greater for all scales. Hejjaji (2021) also reported that the Kansas City Cardiomyopathy Questionnaire (KCCQ) is a valid and reliable tool for both men and women with heart failure. Only two studies (Rebora et al., 2021; Masterson Creber et al., 2016) used the KCCQ to measure outcomes for their patients, making these the more reliable studies with more robust outcomes according to the clinical practice guidelines for 2022 (Heidenreich et al., 2022).

Using one tool in the studies may lead to greater confidence in the results than using more than one tool (Rebora et al., 2021). Also, using the tool recommended in clinical practice guidelines will lead to more robust and stronger evidence (Rebora et al., 2021; Masterson Creber et al., 2016). More studies should be done to determine which tool is the gold standard for measuring self-care in heart failure patients. When selecting a tool, the study design should include reliability and validity data regarding the tools the authors select to measure their outcome, as this information strengthens the evidence (Flores et al., 2019; Masterson Creber et al., 2016; Riegel et al., 2017). In addition, studies that do not have a power analysis weaken the study (Riegel et al., 2017).

Limitations and Strengths

Limitations and strengths exist for any study; understanding these can help nurse practitioners provide safe and competent care to adult patients with heart failure. Understanding and implementing motivational interviewing and the training required is a limitation of the intervention (Hatch et al., 2021).

In this literature review, the studies had certain limitations. For instance, the sample sizes were small (Flores et al., 2019; Masterson Creber et al., 2016; Rebora et al., 2021; Riegel et al., 2017), and the results could have been influenced by additional ways the intervention could have worked. This limitation was due to data that could not be defined as longitudinal, qualitative, or quantitative (Riegel et al., 2017). The effectiveness of the intervention is limited by a lack of statistical significance (Masterson Creber et al., 2016). In addition, the studies neglecting to discuss the tool's reliability and validity weakens the overall strength of the findings (Flores et al., 2019; Masterson Creber et al., 2016; Riegel et al., 2017). In addition, studies that do not have a power analysis weaken the study (Riegel et al., 2017).

Furthermore, the interpersonal characteristics of interventionists could have also affected the results (Riegel et al., 2017). Other limitations identified were technical issues with MI quality, failure to perform a multivariate analysis stratification by not blinding for sex and intervention, and the inability to generalize the study. Cost and the need for a large team to carry out the study were also factors (Flores et al., 2019). Further research was also needed to determine if a nurse-led MI intervention could be effective and cost-effective in a clinical practice setting rather than at home (Masterson Creber et al., 2016).

Conversely, the studies' strengths discussed using a robust sequential mixed methods design, which enables data integration during the analysis phase (Riegel et al., 2017). Additionally, the authors discussed the strength of the trial being conducted across multiple

centers, which supports the results' rigor (Rebora et al., 2021). Another strength discussed was the high participation rate of minorities, with over 50% of participants being women. Additionally, discussing the reliability and validity data of the tools used strengthens the study (Rebora et al., 2021). In contrast, Flores et al. (2019) did not report any strengths of their study.

Gaps in Literature

The present evidence is limited due to the insufficient research conducted in the field. The original intention was to include studies published within five years, but the search was expanded to ten years due to the lack of current literature. The studies included in this literature review had small sample sizes, producing conflicting results. While some studies showed the effectiveness of motivational interviewing (Flores et al., 2019; Rebora et al., 2021; Riegel et al., 2017), one study contradicted that (Masterson Creber et al., 2016). Moreover, there were discrepancies in reporting statistical data, with some studies using SCHFI and others using the KCCQ to measure their outcomes. To address these gaps, further research is needed to understand the benefits of motivational interviewing in improving self-care in heart failure patients.

Conclusion

In conclusion, congestive heart failure (CHF) is a common reason for hospitalization in the US. The condition occurs when the heart can't pump blood effectively, causing shortness of breath, swelling, reduced ejection fraction, and other symptoms. Readmissions within 30 days of discharge are a measure of healthcare quality. Approximately one-fifth of Medicare beneficiaries are readmitted to the hospital, costing over $15 billion annually. Taking care of oneself is crucial in managing heart failure. Advanced practice nurses can provide education to their patients on the transtheoretical model (TTM) and the temporal self-regulation theory (TST). These theories

can help patients understand their executive function requirements for behavioral change and the different stages of change. This understanding can help develop a framework for an individualized care plan (Eshah, 2019; Hall & Fong, 2015). Although research on this topic is limited, evidence suggests that motivational interviewing may positively impact patient outcomes by increasing self-care behaviors, reducing hospital readmissions, and improving patient self-efficacy. Healthcare providers must be aware of the benefits of motivational interviewing and receive proper training to assist patients in making positive changes and taking control of their disease (Hatch et al., 2021).

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