

BARRIERS AND FACILITATORS OF PALLIATIVE CARE FOR ADULT HEART FAILURE PATIENTS: INTEGRATIVE REVIEW

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Abstract

Introduction: Heart failure (HF) patients usually experience symptoms such as dyspnea, tiredness, cognitive impairment, and pain. Those symptoms contribute to a decline in physical functioning and a limitation in their ability to do their daily tasks. Palliative care (PC) is crucial for people with HF because it focuses on improving the quality of life and can reduce symptoms and improve function. Qatar aims to introduce PC services for adult patients with HF.

Objective: This integrative review aims to investigate the barriers, facilitators, and the outcomes to the provision of palliative care among adult patients with HF.

Methods: Whittemore and Knafli's framework guided this integrative review. Using three databases, twenty (n=20) peer-reviewed articles, published between 2011 and 2022, were included in the integrative review. The Mixed Methods Appraisal Tool was used to assess the quality of these articles. The data was then extracted and thematically analyzed before being synthesized.

Results: The barriers, facilitators, and outcomes of providing PC services to individuals with HF were identified from the perspectives of patients, healthcare providers, and healthcare organizations.

Conclusion: Gaining a comprehensive understanding of these barriers, facilitators, and outcomes associated with providing PC services to adults with HF is central for the effective implementation of such services for this patient population in Qatar.

Keywords: heart failure, palliative care, barriers, facilitators

Barriers and Facilitators of Palliative Care for Adult Heart Failure Patients: Integrative Review

Cardiovascular disease, particularly heart failure (HF), is a leading cause of death worldwide (Singh et al., 2021). It results from physiological and functional abnormalities in the myocardium that lead to impaired ventricular filling and ejection of blood (Inamdar & Inamdar, 2016). Several risk factors are related to HF, including coronary artery disease (CAD), heart valve disease, high blood pressure, diabetes, smoking, and obesity (Mayo-Clinic, 2023). Patients with advanced HF usually experience symptoms such as dyspnea, tiredness, cognitive impairment, and pain (Ziehm et al., 2016b). These symptoms contribute to a decline in physical functioning and a restriction in daily activities. Furthermore, patients with advanced HF suffer from a range of psychosocial, socioeconomic, and emotional burdens including increased depression and job loss, in addition to devastating functional impairment that can have an impact on their overall quality of life (Caraballo et al., 2019).

Therefore, given the high symptom load and low survival rates, palliative care (PC) is crucial for people with HF because it focuses on quality of life, reduces symptoms, and improves function (Singh et al., 2021).

According to the World Health Organization (WHO), PC "an approach that improves the quality of life of patients and their families facing the problems associated with life threatening illness, through the prevention and relief of suffering" (Ivany & While 2013, p. 441). PC has been recommended for patients with HF to reduce symptoms, improve quality of life, avoid hospitalizations, and potentially avoid visits to the emergency room (Singh et al., 2021). However, McIlvenna and Allen (2016) identified several barriers to PC in HF. These authors indicated that HF patients underused PC treatments compared to cancer patients. In Qatar, cancer PC services are well developed compared to those for HF. Plans are being developed to launch PC services for these patient populations (Ministry of Public Health, n.d.).

As a result, the purpose of this integrative review is to investigate the barriers and facilitators to providing PC to adult patients with HF. It is hoped that understanding such barriers and facilitators will inform the implementation of PC for adult patients with HF in Qatar.

Background

HF is a complex clinical disease in which the heart is unable to sustain sufficient cardiac output to fulfill metabolic needs (Malik et al., 2022). HF is caused by any condition that inhibits ventricular filling or ejection of blood into the systemic circulation (Malik et al., 2022). As a result, HF patients experience tiredness and dyspnea as well as decreased exercise tolerance and fluid retention (Malik et al., 2022).

The Prevalence and Incidence Rates of HF

Globally, 64.3 million individuals live with HF (Groenewegen et al., 2020). The prevalence rate of recognized HF patients varies across different nations. For example, the prevalence of HF in the United States was 2.4% in 2012, and it is expected to grow to 3.0% by 2030 (Savarese et al., 2022). In Norway, researchers found that overall HF prevalence increased from 1.98% in 2013 to 2.42% in 2016 (Savarese et al., 2022). In India, the prevalence rate of HF ranged from 1.3 to 4.6 million people (Savarese et al., 2022). The prevalence rate in other Asian countries was estimated to be 2% to 3% in Hong Kong, 5% in Indonesia, 1% to 2% in the Philippines, 0.6% in South Korea, and 6% in Japan (Savarese et al., 2022). Savarese et al. (2022) stated that the prevalence of data on the rate of HF in the Middle East was limited, but the estimated range is from 1.3% to 6.7%. Furthermore, there is no reported prevalence rate of HF patients in Qatar. Generally, in Qatar, the mortality rate from cardiovascular diseases from 2011- 2013 was 8.3 per 100,000 Qatari males and 4.1 per 100,000 non-Qatari males aged 20 -44 years (Ministry of Public Health, 2020).

Pathophysiology and Treatment of Heart Failure

Clinically, HF is divided into two basic categories based on the heart's functional status: heart failure with preserved ejection fraction (HFpEF) and heart failure with reduced ejection fraction (HFrEF; Inamdar & Inamdar, 2016). Understanding the pathophysiology of HFpEF and HFrEF assists in the selection of therapy targets (Schwinger, 2021). HFpEF is characterized by anatomical and cellular changes that prevent the left ventricle from adequately relaxing (Schwinger, 2021). HFrEF, on the other hand, is defined by significant cardiomyocyte loss, either acute or chronic, resulting in systolic failure (Schwinger, 2021).

Coronary heart disease, hypertension, diabetes mellitus, obesity, chronic lung disorders, inflammation or chronic infection, metabolic diseases, and treatment with cardiotoxic drugs are the main risk factors for HF (Schwinger, 2021). According to Schwinger (2021) shortness of breath, dyspnea, orthopnea, paroxysmal nocturnal dyspnea, tiredness, weakness, and lethargy are all symptoms of HF. Kaasalainen et al. (2011) reported the following frequencies of distressing symptoms; HF fatigue (42% to 82%), dyspnea (18% to 88%), pain (20% to 78%), insomnia (36% to 48%), anxiety (2% to 49%), constipation (12% to 42%), anorexia (11% to 43%), edema (33% to 44%), and depression (6% to 59%).

There are various ways to classify HF. One is according to the severity of the functional status of the individuals using the New York Heart Association (NYHA) classification system (Mayo Clinic, 2023). The NYHA classifies HF into four classes. The classes include Class I, where the patient has no symptoms of HF; Class II, where the patient can perform daily tasks; Class III, where the patient experiences difficulties performing daily tasks;

and Class IV, where the patient exhibits severe symptoms even when at rest. In general, patients with HF who fall into NYHA classes III or IV are referred to PC, with HF symptoms palliation being the top priority (Asano et al., 2019). Bierle et al. (2021) stated that “the unpredictable but overall, progressively declining illness trajectory of patients with HF makes palliative care ideal because it does not depend on the prognosis and can be integrated into all phases of the patient’s treatment and disease” (p. 9). Furthermore, HF is classified as acute or chronic based on the time of onset (Inamdar & Inamdar, 2016).

The objective of HF treatment is to enhance symptom management and quality of life while decreasing hospitalizations (Malik, 2022). According to McCuiston et al. (2020), vasodilators, angiotensin-converting enzyme inhibitors (ACE), diuretics, and some betablockers are among the pharmacological agents used to treat HF. Vasodilators lower venous blood return, which lowers cardiac filling; ACE inhibitors dilate venules and arterioles and lower blood volume; diuretics lower blood volume; and beta-blockers lower the effect of the sympathetic nervous system, which lowers heart rate and blood pressure (McCuiston et al., 2020). Non-pharmacological measures are also used to treat HF. These include dietary and lifestyle changes such as reduced salt intake and fluid intake, and smoking cessation (McCuiston et al., 2020).

Palliative Care for Heart Failure

The National Consensus Project Clinical Practice Guidelines for Quality Palliative Care (NCP guidelines) defines palliative care (PC) as “an interdisciplinary care delivery system designed to anticipate, prevent, and manage severe illness to optimize the quality of life for patients, their families, and caregivers” (Kim et al., 2022, p. 151). PC aims to lessen all types of suffering, including physical, psychological, and spiritual pain, by addressing advanced care planning, symptom alleviation, and caregiver or family support (Sullivan & Kirkpatrick, 2020). The word “palliative” is derived from the Greek word *pallium*, which refers to a cloak-like garment that the Greeks wore outside of their regular working lives and which they saw as a source of protection. English speakers changed the succeeding Latin word *palliatus* to become “palliate” in the fifteenth century. In figurative usage, the term was changed from referring to one’s cloak to a means of protection and reducing the severity of harm or disease (Sullivan & Kirkpatrick, 2020). The PC movement was first established at St. Christopher’s Hospice in the UK in 1967 (Sullivan & Kirkpatrick, 2020). In the 1980s, the first hospital-based palliative care was founded, and the first palliative medicine program began in the USA in 1987 (Sullivan & Kirkpatrick, 2020). Sullivan and Kirkpatrick (2020) stated that palliative medicine received approval from the Accreditation Commission in 2004. Hospice and palliative medicine were approved as recognized specialties by the American Board of Medical Specialties in 2006, (Sullivan & Kirkpatrick, 2020). In addition, McIlvennan and Allen (2016) reported that even though

the terms “hospice” and “palliative care” are frequently used interchangeably, they have distinct meanings. PC is a word used to refer to all types of care that, without regard to the prognosis, prioritize symptom control and quality of life over curative therapy (McIlvennan & Allen, 2016). The authors explained that for those suffering a life-limiting disease or injury, hospice is often regarded as a division of PC. Hospice care is a type of PC delivery mechanism intended for people nearing the end of their lives (McIlvennan & Allen, 2016). PC can be classified into primary, secondary, and tertiary McIlvennan & Allen, 2016). Primary PC refers to the basic skills and information that all healthcare providers must possess to address the common palliative needs of cardiac patients (Mallvennan & Allen, 2016). Secondary palliative care is usually provided by palliative care experts (McIlvennan & Allen, 2016). Tertiary PC is delivered in academic healthcare settings where scholars research, practice, and teach complex PC issues (McIlvennan & Allen, 2016).

Domains of Palliative Care

Effective PC for HF patients must comprise holistic assessment and monitoring (Westlake & Smith, 2015). The domains of PC are physical, social, psychological, spiritual, cultural, transitions to hospice, and ethical/legal (DeGroot et al., 2020). The physical domain is focused on physical performance enhancement, whereas the social domain is concerned with the screening of various types of social support and resources (DeGroot et al., 2020). The psychological domain includes the evaluation of mental health as well as the stress and coping mechanisms of patients and their family caregivers (DeGroot et al., 2020). The spiritual realm is concerned with the assessment and facilitation of the spiritual activities of the patients and their family caregivers (DeGroot et al., 2020). The cultural domain assesses, and respects values, beliefs, and traditions linked to health, disease, family caregiver obligations, and decision-making (DeGroot et al., 2020). Within the realm of transition to hospice care, healthcare providers examine, recognize, and manage the signs and symptoms of impending death, while the domain of ethics addresses any relevant ethical decision making (DeGroot et al., 2020).

Barriers to Palliative Care Services

There are various barriers to PC: patient and their family caregivers related, health care providers related, and organizational related barriers (Romano, 2020). Perrin and Kazanowski (2015) reported that among barriers for the patients and their family caregivers in critical care units was the misunderstanding about PC. The authors explained further that the most common misperception was that PC was just for people who are dying. Moreover, Ufere et al. (2019) reported the barriers to PC at the healthcare provider and organizational levels. At the healthcare provider level, the authors highlighted how the culture of the healthcare providers influenced PC perception in their practice (Ufere et al., 2019). Moreover, at the organizational level, Ufere et al. (2019) explained

that insufficient funding, lack of time spent delivering PC, and insufficient acknowledgment of the relevance of PC by health organizations was found to be a barrier to PC utilization.

Impact of Palliative Care

The purpose of PC efforts is to improve the quality of life for persons suffering from severe conditions such as HF and their informal caregivers, such as family members (Grant & Graven, 2020). Bekelman et al. (2011) reported that HF patients and their family caregivers valued the early implementation of PC services, particularly psychological and symptom management. Hospitals with policies and practices in place to promote PC delivery had higher patient outcomes (Grant & Graven, 2020). Overall, PC improves patient satisfaction, autonomy in end-of-life care, symptom burden, quality of life, and reduces the use of other healthcare services (Romano, 2020).

The Context in Qatar

The Qatar National Health Strategy 2018–2022, was unveiled by the MOPH, and it intends to improve the health of residents in Qatar (MOPH, n.d). The improvement of the health of persons with chronic diseases through integrated and accessible services is one of the strategy's seven top pillars. The Qatar National Health Strategy indicates that individuals with chronic diseases require the information and skills to effectively manage their conditions and avoid needless hospitalization and emergency room visits. This will help these individuals with chronic illnesses attain autonomous and healthy lives. HF is a chronic disease that needs regular cardiac care. The Heart Hospital (HH) in Qatar is a specialty center with a total of 116 beds specifically for individuals with cardiovascular disease including HF (Hamad General Hospital, n.d). Currently, the HH strategy aims to introduce PC services for adult patients with HF.

Aim

The introduction of PC services for adult patients with HF in Qatar will allow better services to this patient population. Therefore, an integrative review was conducted to understand the barriers and facilitators of the provisions of PC among adult patients with HF. This understanding will help to develop strategies to implement PC for adult patients with HF in Qatar.

Methodology

This project follows the integrative review framework developed by Whittemore and Knafl (2005). An integrative review was chosen as the most appropriate method to investigate the barriers and facilitators to the provision of PC among adult patients with HF. An integrated review synthesizes previous empirical or theoretical material to provide more thorough knowledge of a specific phenomenon or healthcare problem (Whittemore & Knafl, 2005). Whittemore and Knafl (2005) explained

that integrative review permits the inclusion of different sources of literature and has the potential to contribute to the creation of evidence-based nursing practice. This framework has five stages, which are problem identification, literature search, data evaluation, data analysis, and synthesis of the findings.

Problem Identification

Whittemore and Knafl (2005) stated that clear identification of the problem is the first step of the integrative review framework. The Qatar National Health Strategy 2018–2022 indicates that individuals with chronic diseases require the information and skills to effectively manage their conditions and avoid needless hospitalization and emergency room visits. There is a need to introduce PC services for adult patients with HF in Qatar.

Furthermore, the HH strategic plan aims to introduce a PC service to provide better services to this patient population. Therefore, this integrative literature review aims to identify the barriers and facilitators of the provision of PC for adult HF patients. It is expected this integrative literature review will facilitate the implementation of PC services in Qatar for adult patients with HF.

Literature Search

The search for literature in this integrative review was done with assistance from a librarian at the University of Calgary in Qatar. Searches were conducted in the following databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), MEDLINE, and Embase. The key search terms were heart failure, cardiac failure or chronic heart failure or congestive heart failure, palliative care or end of life care or terminal care, barriers, obstacles or challenges or difficulties, facilitators, or enablers. The Boolean operators AND and OR were utilized to combine or extend the search. The search limiters were peer-reviewed articles, articles published in English, and articles published from 2011 to 2022. After applying these limiters, 836 articles were identified.

Data Evaluation

The identified 836 articles were evaluated for inclusion in this integrative review. Two hundred and seventy-six duplicate articles were removed, bringing the total to 560 articles.

The titles and abstracts of the 560 articles were reviewed, and 465 articles were found to be irrelevant and were removed. A full text review was conducted for the remaining 95 articles using the inclusion and exclusion criteria (see Table 1). The inclusion criteria were (a) primary studies; (b) studies that focused on adult heart failure; (c) studies related to hospital based palliative care; and (d) studies focused on the barriers and facilitators of the provision of palliative care for HF. The exclusion criteria were (a) posters, reviews, opinions, and conference abstracts;

Table 1: Inclusion and Exclusion Criteria

Inclusion	Exclusion
Primary studies	Literature Reviews, reports, opinions, conference abstracts
Palliative care for adult with heart failure	Articles focused on palliative care for pediatric with heart failure
Studies related to hospital based palliative care	Studies focused on community based palliative care
Studies focused on the barriers and facilitators of the provision of palliative care for HF	Studies focused on barriers, facilitators of palliative care of other diseases
Peer-reviewed studies	Secondary sources such as literature reviews
Studies published from 2011 to 2022	Studies published before 2011
Studies in full text and written in English	Non-English language studies

(b) articles focused on pediatric heart failure; (c) studies focused on community palliative care services; and (d) articles focused on palliative care of other diseases. Based on the inclusion and exclusion criteria, 76 articles were eliminated. Therefore, 19 primary articles remained for further consideration. One article was added following a manual search bringing the total to 20 articles (see Figure 1). The summary of the screening process is presented in the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow chart (see Figure 1).

To assess the methodological quality of the retrieved articles for this integrative review, the Mixed Methods Appraisal Tool (MMAT) version 2018 was employed (Hong et al., 2018). The MMAT assesses the methodological quality of different research designs, such as qualitative studies, quantitative descriptive studies, quantitative randomized controlled trials, quantitative non-randomized studies, and mixed methods studies (Hong et al., 2018). The MMAT was developed in 2006 and was revised in 2018 (Hong et al., 2018). According to Hong et al. (2018), the quality of the research should be assessed by two independent reviewers. The MMAT contains two key parts for evaluating the research study's quality. For both parts of the screening procedure, possible replies are (a) yes, (b) no, and (c) cannot tell (Hong et al., 2018). Part one begins with two screening questions asking about: (a) the presence of a clear research question, and (b) the data collection that addresses the research question. The studies are then evaluated in the second part using specific criteria for the study design.

There were 14 qualitative studies, two quantitative descriptive studies, two quantitative non-randomized studies, one mixed method research, and one study that collected both qualitative and quantitative descriptive data. The 14 qualitative studies were evaluated based on the following: (a) they used an appropriate approach to answer the research question; (b) the data collection methods were adequate; (c) the findings were derived from the data; (d) the findings were validated by the data; and (e) there was consistency between the data sources,

data collection, analysis, and interpretations. The two quantitative descriptive studies were evaluated based on the following: (a) relevant sampling strategy was used to answer research question; (b) the sample represents the target population; (c) appropriate measurements were used; (c) the risk of non-response bias was low; and (d) appropriate statistical measurement were used to answer the research question. The quantitative non-randomized studies were evaluated based on the following: (a) the participants represent the target population; (b) using appropriate measurement for the outcome; (c) there were complete outcome data; (d) the confounders were accounted for the design and analysis; and (e) during the study period, the intervention was administered as intended. The mixed method studies were evaluated for their quantitative and qualitative properties in addition to the following: (a) there was an adequate rationale for using a mixed methods design to address the research question; (b) the different components of the study were effectively integrated to answer the research question; (c) the outputs of the integration of qualitative and quantitative components were adequately interpreted; (d) divergences and inconsistencies between quantitative and qualitative results adequately addressed; and (e) the different components of the study adhere to the quality criteria of each tradition of the methods involved. The one study that used both qualitative and quantitative descriptive data collection was evaluated based on both descriptive quantitative and quantitative MMAT criteria. The overall quality of the chosen studies was found to be adequate, so they were all included for further analysis.

Data Analysis

Data analysis phase requires that data be sorted, coded, categorized, and summarized into a cohesive and integrated conclusion regarding the research topic (Whittemore & Knaf, 2005). Data analysis entails the following steps: data reduction, data display, data comparison, conclusion drawing, and verification (Whittemore & Knaf, 2005).

Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PR

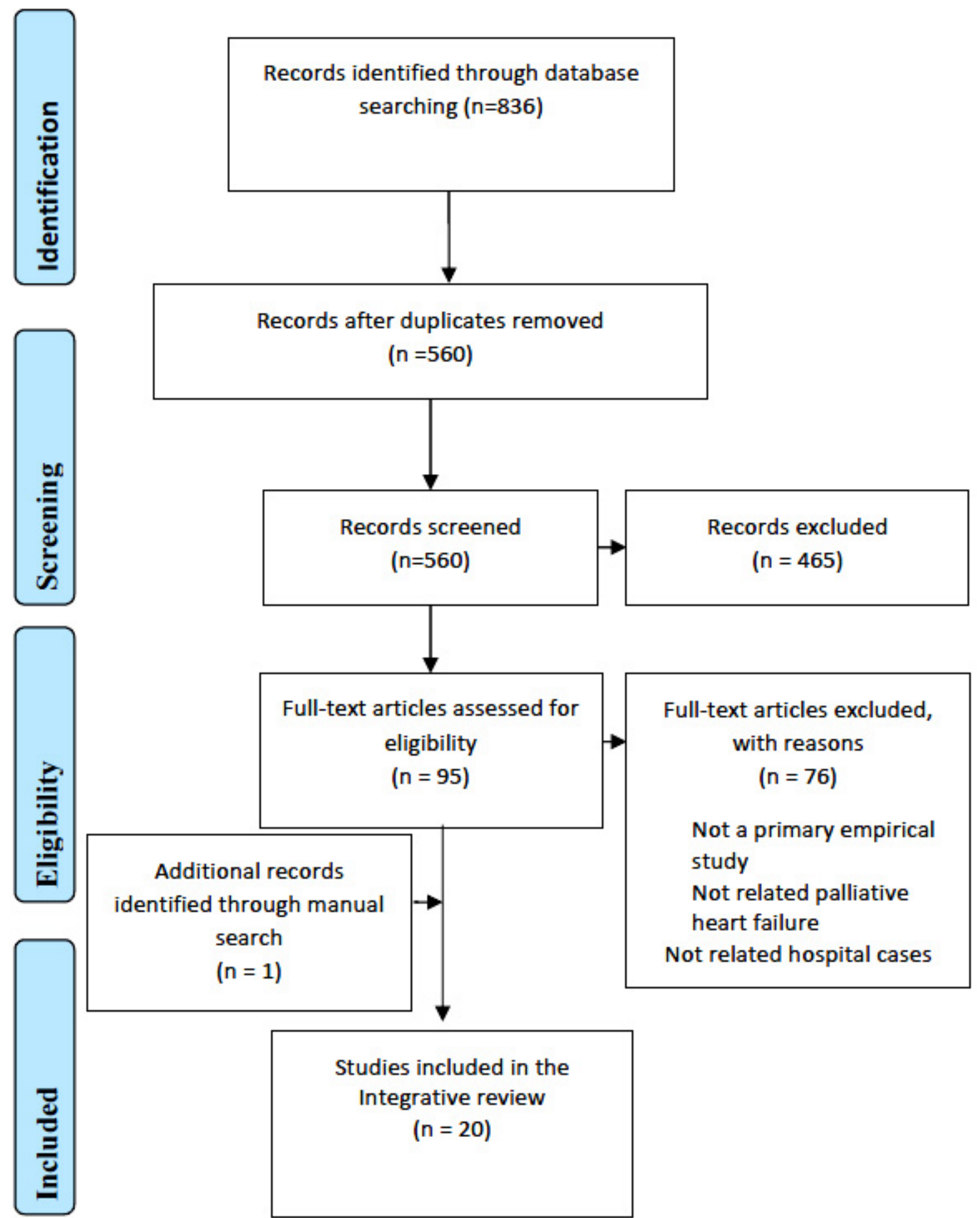
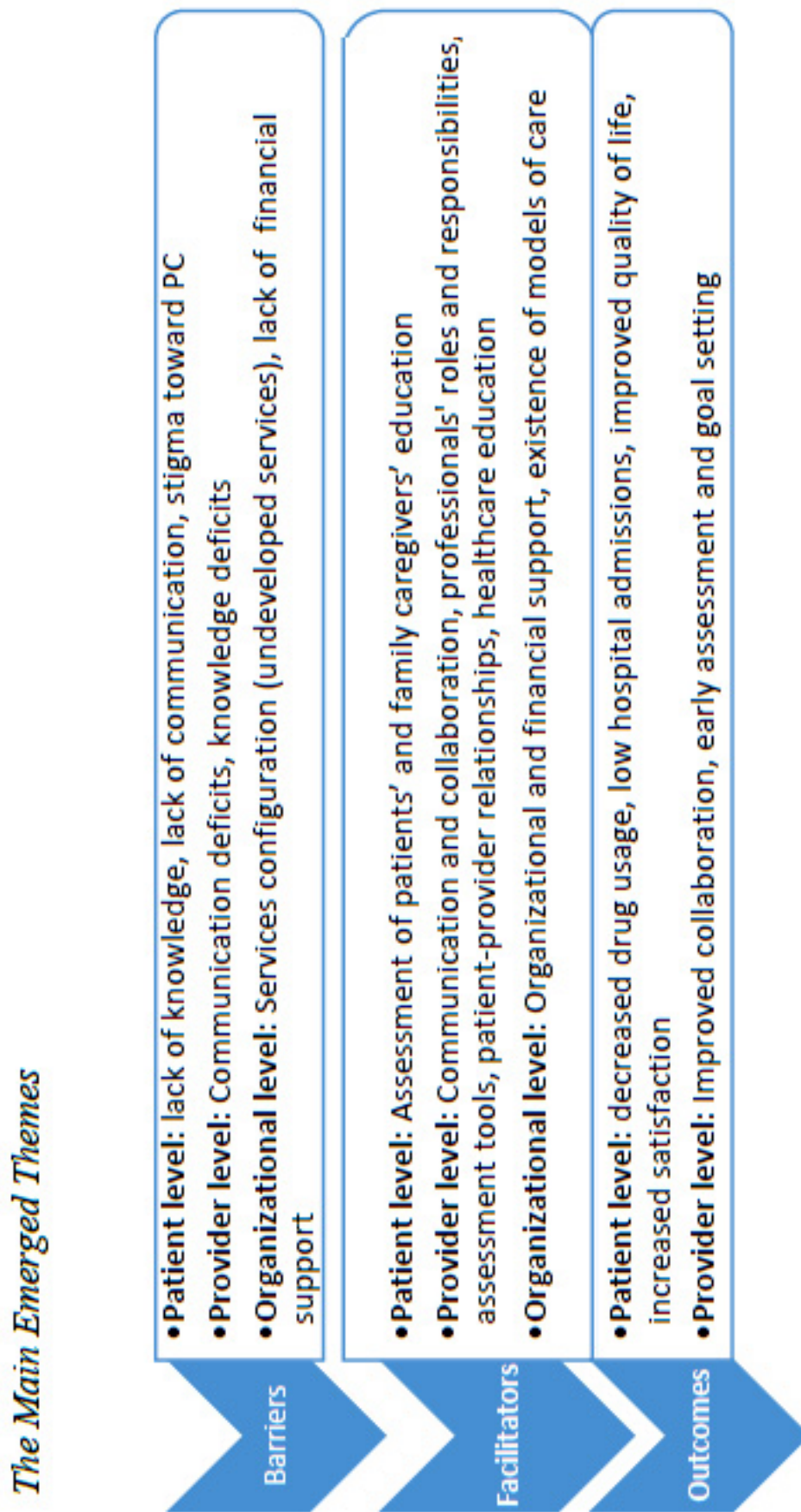


Figure 2: The Main Emerged Themes



In the data reduction phase, data is abstracted and compared to categorize and group relevant data. The extracted data from the selected articles was displayed in a matrix table to identify common themes. In the data display step, the extracted information was summarized to capture essential information in a succinct and focused way (Whittemore & Knaf, 2005).

The data was categorized by author, research purpose, study design, sample size and characteristics, data collection instruments, and context of where it was obtained. After reviewing the summary data extraction sheets, two reviewers agreed on identifying significant and relevant components for each phase. The differences and similarities amongst the data abstracted from the studies were then examined, followed by a synthesis of findings.

The data comparison phase entails an iterative process of evaluating data presentations of primary source data to uncover patterns, themes, or correlations (Whittemore & Knaf, 2005). Consequently, three themes emerged that provided answers to the research question raised in this review: What are the barriers and facilitators, and the outcomes in the provision of palliative care for adult patients with HF? The final phase of the data analysis is the conclusion drawing and verification, which shifts the interpretative effort from the description of patterns and correlations to higher levels of abstraction. In this phase, several revisions by two reviewers were carried out during the data verification process to assure the integrity of the reported findings. Figure 2 presents a diagram representing the barriers, the facilitators, and the outcomes that were obtained from the 20 articles.

Barriers

Patients and Family Caregiver Barriers

Barriers identified at the patient and family caregiver level were lack of knowledge, stigma regarding PC, and lack of communication related to PC. A Lack of knowledge was reported related to the nature of the disease (Ziehm et al., 2016a; Ziehm et al., 2016b), as well as unfamiliarity and misunderstanding of the diagnosis and its consequences (Browne et al., 2014). Four studies reported a lack of knowledge of PC as a model of care (Hadler et al., 2020; Metzger et al., 2013; Shibata et al., 2022; Ziehm et al., 2016b). For example, In Metzger et al.'s (2013) study, patients had no or little prior knowledge of the phrase "palliative care" and were unaware of the existence of the PC services. Additionally, Hadler et al. (2020), reported that patients mentioned prior familiarity with PC but wrongly confused it with hospice. In two studies, the patients and their families frequently believed that PC was only significant in the latter stages of life (Metzger et al., 2013; Shibata et al., 2022). In Ziehm et al.'s (2016a) study, patients reported a lack of information about the substance and structure of PC services. In addition, a lack of knowledge about therapies, such as devices and medications, was also reported as a barrier to PC management (Browne et al., 2014; You et al., 2017). In Browne et al.'s (2014) study, patients and caregivers reported a lack of knowledge

about the adverse effects of medications. While in You et al.'s (2017) study, patients and their family caregivers reported a lack of knowledge regarding the limitations or possible risks of life-sustaining therapies. The stigma surrounding PC was a considerable barrier to its use. Four studies reported that the patients and their family caregivers linked PC with death and PC was on an equal footing with euthanasia (Singh et al., 2021; Siouta et al., 2018; Ziehm et al., 2016a; Ziehm et al., 2016b). Therefore, patients and their family caregivers avoided discussions related to PC. Additionally, other communication barriers with health care providers were reported by the patients and their family caregivers (Browne et al., 2014; You et al., 2017).

According to You et al. (2017), patients and their families wanted reliable information regarding the prognosis; yet emotional distress or anxiety about the nature of advanced HF prevented them from engaging in dialogues about PC provision. While in Browne et al.'s (2014) study, patients reported that cognitive impairment, comorbidities, and prognostic worry contributed to the deterioration of PC conversations.

Healthcare Provider Barriers

Barriers identified at the healthcare provider level were communication and knowledge deficits. A communication deficit regarding the start and management of PC for patients with HF was reported by healthcare providers as a barrier. Three studies stated that discussing prognosis was difficult due to the disorder's complex and unpredictable nature (Ecarnot et al., 2018; Glogowska et al., 2016; Siouta et al., 2018). Additionally, healthcare providers stated that they avoided discussing end-of-life issues whenever possible and frequently cited lack of time as an excuse (Ament et al., 2022; Browne et al., 2014; Ecarnot et al., 2018; Siouta et al., 2018). Moreover, healthcare providers reported variations in the approaches used to treat HF within healthcare specialties that caused communication discrepancies (Ecarnot et al., 2018; Singh et al., 2021; Ziehm et al., 2016b). In the study of Ecarnot et al. (2018) it was reported that practices varied among different health and paramedical professionals. Singh et al. (2021) and Ziehm et al. (2016b) stated that multiple team members were caring for the patient with differing beliefs about care, which complicated the communication about when to refer the patient to PC services. Additionally, in two studies, the nurses reported a lack of support in their workplace to participate in PC related communication (Singh et al., 2021; You et al., 2017). In the study of You et al. (2017), nurses felt neither challenged nor supported in their communication. While Singh et al. (2021) reported that healthcare providers emphasized their lack of communication skills as limiting the patient's access to PC.

A lack of knowledge about PC was reported as a barrier. A lack of knowledge has been reported about HF and its unpredictable prognosis in several studies (Bonares et al., 2021; Glogowska et al., 2016; Green et al., 2011; Kavalreratos et al., 2016; Lewin et al., 2017; Ziehm et al.,

2016a; Ziehm et al., 2016b). Other studies reported a lack of understanding of PC and described the perception that PC only helps cancer patients (Green et al., 2011; Ziehm et al., 2016a; Ziehm et al., 2016b).

Healthcare Organization Barriers

Barriers identified at the healthcare organization level were service configuration and a lack of financial support for PC services. Three studies reported on the service configuration of PC as a barrier (Browne et al., 2014; Singh et al., 2021; Szekendi et al., 2016). Browne et al. (2014) reported that inadequate PC services configuration, such as unclear pathways, inadequate coordination, and unprepared services led to unplanned admissions of patients to emergency departments. While in the study of Szekendi et al. (2016), it was reported that there was no common explanation of PC services within the organizations which led to limiting PC referrals. Similarly, Singh et al. (2021) reported that the PC service often has limited resources with few team members covering the hospital. Another obstacle reported was the lack of financial support for PC services (Ziehm et al., 2016b). Ziehm et al. (2016b) reported that PC healthcare providers were underpaid, which led to an inadequate number of PC professionals providing such services.

Facilitators

Patient and Family Caregiver Facilitators

The facilitator identified at the patient's and family caregiver level was the patient and caregivers' education. One study reported that the major criterion for discussing the prognosis and probable transfer to PC was believed to be the assessment of patient's education needs related to disease progression and the provision of PC (Green et al., 2011). Three studies reported the importance of patient education about PC as a concept (Hjelmfors et al., 2018; Ziehm et al., 2016a; Ziehm et al., 2016b). It was further explained in the Ziehm et al. (2016a), and Ziehm et al. (2016b) studies that educating patients about PC led to increased quality of life and dispelled the myth that PC is only suitable for cancer patient care. Hjelmfors et al. (2018) reported that a question prompt list (QPL) was used successfully to educate and facilitate communication between patients and their families on the course of their HF and their end-of-life care. Additionally, two studies reported that educating patients and their family caregivers about advance care planning was a key enabler of participation in PC (Glogowska et al., 2016; You et al., 2017). You et al. (2017) reported that advanced care planning was an important procedure that helped with in-hospital goals-of care conversations about PC, while in Glogowska et al.'s (2016) study, it was acknowledged that advanced care planning helped the patients to decide whether to die at home or in the hospitals.

Healthcare Provider Facilitators

Communication and collaboration between different healthcare providers, recognition of the professionals' roles and responsibilities, tools to identify PC needs, patient-provider relationships, and PC-related health care education were identified as facilitators at the healthcare provider level. Five studies reported communication among healthcare team members as a facilitator (Ecarnot et al., 2018; Metzger et al., 2013; Siouta et al., 2018; Ziehm et al., 2016a; Ziehm et al., 2016b). Greater collaboration among different clinical disciplines, according to those studies, improved PC access for HF patients. Furthermore, clarification of healthcare providers' roles and responsibilities facilitated discussions and management of end-of-life care in PC (Ament et al., 2022; Glogowska et al., 2016; Green et al., 2011; Hjelmfors et al., 2022; Szekendi et al., 2016; You et al., 2017). Four studies found that HF nurses and general practice nurses played a more important role for PC needs assessment among this patient population (Ament et al., 2022; Glogowska et al., 2016; Green et al., 2011; You et al., 2017). Moreover, Hjelmfors et al. (2022) reported that physicians oversaw delivering prognostic information, while nurses assisted in initiating discussions related to PC. In the study of Szekendi et al. (2017), it was reported that PC teams were seen as experts in complex symptom management and goal-of-care discussions. Conducting structured PC needs assessment was identified as an important facilitator towards determining and discussing the need for PC. Examples of tools used for this purpose were the HF question prompt list (HF-QPL) (Hjelmfors et al., 2022), the prognosis disease tool (PC-NAT), supportive PC indicator tool (SPCIT) (Hadler et al., 2020), identification of patients with heart failure with palliative care need (I-HARP) (Ament et al., 2022), and algorithms tool (Singh et al., 2021; Siouta et al., 2018; You et al., 2017; Ziehm et al., 2016a).

The literature indicated that these tools were not just only useful in identifying the needs of the HF patients (Ament et al., 2022; Singh et al., 2021; Siouta et al., 2018; Ziehm et al., 2016a), but also served as a guide in the dialogue and assisted the patients and their family caregivers in asking key questions about HF disease progression and PC provision (Hadler et al., 2020; Hjelmfors et al., 2022; You et al., 2017).

Having a good relationship between patients and their healthcare provider facilitated the discussions of the goal of care and enhanced their access to PC services (Ament et al., 2022; Glogowska et al., 2016; Green et al., 2011; Hadler et al., 2020; Hjelmfors et al., 2022; Kavalerator et al., 2016; Siouta et al., 2018; Singh et al., 2021). Five studies reported that close relationships between the patients and their healthcare providers led to a better understanding of what the patient's PC needs were (Ament et al., 2022; Glogowska et al., 2016; Green et al., 2011; Hjelmfors et al., 2022; Siouta., 2018). Other studies reported that the patients' relationships with their healthcare practitioners improved their access to PC services (Hadler et al., 2022;

Kavalerator et al., 2016; Singh et al., 2021). Educating healthcare providers about PC has been reported as a facilitator of PC (Ament et al., 2022; Green et al., 2011; Kavalerator et al., 2016; Shibata et al., 2022; Singh et al., 2021; Ziehm et al., 2016a). Five studies found that PC education significantly increased healthcare providers' knowledge and abilities in addressing the PC needs for HF patients (Ament et al., 2022; Green et al., 2011; Shibata et al., 2022; Singh et al., 2021; Ziehm et al., 2016a). Kavalerator et al.'s (2016) study reported that networking and peer education about PC has led to greater and earlier referrals to PC services.

Healthcare Organizations Facilitators

Organizational and financial support and the development of a PC model of care were identified as facilitators at the level of healthcare organizations. Healthcare organizations' support for healthcare providers was reported as a facilitator for PC (Ament et al., 2022; Hjelmfors et al., 2022; Szekendi et al., 2016; You et al., 2017; Ziehm et al., 2016a). Two studies reported that organizational guidelines and practices, such as availability of time and spaces, fostered a more inter-professional approach to goal-of-care conversations about PC needs (Hjelmfors et al., 2022; You et al., 2017). Ament et al. (2022) reported that organizational e-health advancements in the setting of HF enhanced the early identification of palliative care needs for patients with HF. The authors further explained that using e-health information and assessments of PC needs improved patients' empowerment and participation in goal-of-care conversations. Moreover, Szekendi et al. (2016) reported that the hospital management support enhanced the visibility and implementation of PC services programs. Similarly, Ziehm et al. (2016a) reported that PC units served as advisers for other experts' specializations. The authors underlined in their study that incorporating PC services within hospitals or care units allowed patients to stay in the same units while receiving PC. Financial and organizational support and the development of models of care were reported as additional facilitators for PC services. In Ament et al.'s (2022) study, it was reported that financial motivation helped the implementation and sustainability of change.

An additional facilitator was the development of models of care for PC (Green et al., 2011; Singh et al., 2021). Green et al. (2011) reported that comprehensive models, such as chronic illness prognosis models, enhanced the physicians' insight and clinical judgment about their patients with HF. While Singh et al. (2021) reported that improvements to the organization's HF-PC model allowed for more access to PC services. The authors explained further that a multidisciplinary care team model for patients with HF should be comprised of the cardiologists, HF nurses, PC nurses, PC physicians, pharmacists, physiotherapists, and social workers.

Outcomes of Palliative Care

Patient and Family Caregiver Outcomes

Outcomes identified at the patients' and family caregivers' level were decreased medication usage, a lowered rate of hospital admissions, improved quality of life, and increased satisfaction with PC healthcare providers. Two studies reported reduced medication usage, such as opioid medications, because the treatment of pain had improved (Ziehm et al., 2016a; Ziehm et al., 2016b). Furthermore, literature reports a reduced hospitalization rate as an outcome of PC services (Hadler et al., 2020; Lewin et al., 2016; Siouta et al., 2018; Ziehm et al., 2016a). Three studies reported that integrating PC into the HF treatment plan lowered readmission rates and hospitalization (Hadler et al., 2020; Siouta et al., 2018; Ziehm et al., 2016a). Lewin et al.'s (2016) study reported that at baseline, there were no differences in emergency room (ER) visits ($p = 0.92$); however, following the PC intervention, the group who received PC had substantially fewer ER visits than the control group who did not receive PC intervention ($p = 0.067$).

In addition, quality of life improvement was reported as an outcome of PC services in five studies (Cheang et al., 2015; Hadler et al., 2020; Siouta et al., 2018; Ziehm et al., 2016a; Ziehm et al., 2016b). Those studies reported that PC services improved the quality of life of patients with HF by reducing and preventing physical and psychological pain. Furthermore, three studies reported increased satisfaction with PC healthcare providers as an outcome of PC (Lewin et al., 2017; Metzger et al., 2013; Ziehm et al., 2016b). In Lewin et al.'s (2017) study, patients and their family caregivers reported that the ability to receive continuous care across institutions helped to establish their trust with the PC team and the HF team. Similarly, in Metzger et al.'s (2013) study, patients' and their family caregivers described PC clinicians as listening, being more sympathetic, taking more time, and having a holistic emphasis. In Ziehm et al.'s (2016b) study, it was reported that the patients and their family caregiver's satisfaction with PC healthcare professionals was high and PC management was seen as useful support for efficient coping.

Healthcare Provider Outcomes

Improved collaboration among disciplines, as well as early assessment and goal setting by healthcare providers, were among the outcomes identified at the healthcare provider level. Three studies reported that collaboration improvement was an outcome of PC services (Cheang et al., 2015; Lewin et al., 2017; Siouta et al., 2018). Cheang et al. (2015) reported significant interdisciplinary collaboration between different PC and HF healthcare team members. In Lewin et al.'s (2017) study, it was reported that the program's integrated approach enabled increased communication between the HF and PC teams. Comparably, Siouta et al. (2018) reported that integrating PC required combining the administration and clinical disciplines to achieve patient-centered care.

In addition, two articles reported that early assessment and goal-of-care establishment were outcomes of PC services (Ament et al., 2022; Metzger et al., 2013). Early examination and goals-of-care discussions, according to Metzger et al. (2013), resulted in agreement with the clinician's prognosis, and the patient expressed changes in their objectives throughout time based on a shared perspective of the prognosis with the PC physicians. In comparison, Ament et al.'s (2022) study found that assessing patient needs and goals-of-care on time resulted in better patient outcomes.

Discussion

The purpose of this integrative review was to identify the barriers, the facilitators, and the outcomes of the provision of PC for adult patients with HF. The findings in this review successfully characterized the barriers that needed to be overcome and identified elements that will facilitate the provision of PC in Qatar. This review also identified potential positive outcomes that can be assessed following the implementation of PC. As a result, this understanding would help to develop strategies to implement PC for adult patients with HF in Qatar.

Barriers of Palliative Care

The patient and caregivers, healthcare providers, and healthcare organizations have their own specific barriers that contributed to the lack of utilization of PC for patients with HF. This review showed that the lack of knowledge related to PC was associated with insufficient communication with healthcare providers, which was manifested in the reporting stigma about PC. Comparable findings have been reported in the literature. According to Abu-Odah et al. (2020), inadequate knowledge about PC and stigma toward PC by families and caregivers were significant personal barriers to the provision of PC for cancer patients.

Additionally, Lalani and Cai (2022) stated that fear, values, and beliefs about end of life caused patients and families to have an unclear understanding of PC and to be unwilling to accept such treatment for a family member suffering from a severe illness. This review further indicated that patients with HF should be educated on the course and consequences of their disease as early as possible so that they may communicate their wishes and treatment choices to their healthcare provider. Moreover, renaming PC to "Supportive Care" might have a good influence on patients, resulting in better patient outcomes and eliminating PC misconception (Bonares et al., 2021).

Healthcare providers acknowledged that PC was required for patients with HF. Yet, the biggest barriers for healthcare providers were unclear communication structures and a lack of knowledge about the content and importance of PC. The review highlighted that inadequate knowledge about PC was identified as a barrier that led to a lack of communication among the various professional groups involved in the care of patients with HF. Similar findings have been reported in the literature. Lalani and Cai (2022) stated that clinicians indicated a variety of concerns about the lack of a clear definition and regulation of PC services, which resulted in confusion, misunderstanding, and delays in providing adequate PC services for patients with cancer. This misunderstanding led to challenges in communication between healthcare providers and made referrals of cancer patients to PC services difficult. Moreover, Iyer et al. (2020) explained that PC professionals expressed concerns about not understanding the PC strategy, not having early communication on end-of-life choices, and an unclear disease trajectory for patients with chronic obstructive pulmonary disease.

Despite the great need for PC provision for patients with HF, this integrative review indicated that health care organizations still lack the service configuration and the needed funding to support PC. This review indicated that several healthcare providers acknowledged the limited

Table 2: The Main Themes and Sub-Themes

	Barriers	Facilitators	Facilitators
Patient and family caregiver	Lack of knowledge, lack of communication, stigma toward PC	Assessment of patients' and family caregivers' education	Decreased drug usage, low hospital admissions. Improved quality of life, increased satisfaction
Healthcare providers	Communication deficits, knowledge deficits	Communication and collaboration, professionals' roles, and responsibilities., assessment tools, patient-provider relationships, healthcare education	Improved collaboration, early assessment, and goal setting
Healthcare organizations	Services configuration, lack of financial support	Organizational and financial support, existence of models of Care	

resources provided for the PC service, particularly staff shortages. This caused clinicians to be cautious when deciding whether to refer a patient to a PC. These findings are supported by the results of other studies that investigated PC among other patient populations. For example, Abu-Odah et al. (2020) reported that the primary barriers to providing PC for cancer patients were limited staffing and limited physical infrastructure such as facilities, equipment, supplies, beds, and chairs. The authors explained that the most significant impediment to providing PC for cancer patients was a lack of financial support for PC services. Additionally, Lalani and Cai (2022) claimed that funds should be made available to improve PC resources and foster the development of PC services for cancer patients.

Facilitators of Palliative Care

The patient and their family caregiver, the healthcare provider, and healthcare organizations all had their own specific facilitators that contributed to the improvement in the utilization of PC for patients with HF. Overall, providing PC for patients with HF was supported and facilitated when education was provided to patients and their family caregivers. The review explained that educating patients about PC improved their quality of life and eliminated the idea that PC was only appropriate for cancer patients. It was further suggested in this review that tools such as QPL assisted patients and family caregivers during clinical consultations and enabled them to ask appropriate questions regarding the HF trajectory and end-of-life care. Evidence from other contexts presented comparable results. Bennardi et al. (2020) reported that educating patients improved awareness of PC benefits and support of PC usage through exposure to clear end-of-life information. These benefits were connected to greater PC utilization among cancer patients (Bennardi et al., 2020). Additionally, Halabi and Bani (2022) stated that providing information that improves the understanding of PC services improved the recovery of patients after a stroke.

For healthcare providers, the key facilitators of delivering PC for patients with HF were communication, clearly defined responsibilities, and roles, using appropriate tools to assess PC needs, and education. This review showed that understanding the professional roles and their obligations in communicating illness prognosis and end-of-life care is vital to consider. This is because the HF healthcare providers have a variety of specialties, education, and experiences. These findings were echoed in other literature. Albers et al. (2016) explained that cooperation and shared educational activities between the PC team and geriatric medicine led to a comprehensive and holistic approach that improved the quality of life of those suffering from significant chronic dementia. Moreover, Bennardi et al. (2020) stated that collaboration and exchanging educational meetings between oncologists and the PC team, as well as participation in multidisciplinary meetings, increased cancer patients' utilization of PC services during the negotiation phase with patients and their family caregivers.

The development of PC delivery models, along with proper organizational and financial support, allowed healthcare organizations to deliver PC more easily to patients with HF. This review concluded that providing funding and resources enabled access to specialist PC for patients with HF, which improved their functions, symptoms, quality of life and reduced the number of hospitalizations. Such funding is important for educating and training healthcare providers to enhance their communication skills and encourage the exchange of information and skills between disciplines. Evidence from other contexts suggested similar findings. Iyer et al. (2020) evaluated the outcomes of investing in innovative PC delivery models such as telemedicine PC, increasing the number of trained pulmonary nurses in PC, and integrating PC specialists in clinics alongside pulmonary practitioners. The authors reported that nurse-led early PC models enhanced quality of life, mood, and survival in patients with advanced disease. Additionally, VanDoorne et al. (2022) claimed that the hospital's financial support aided in the development of care models and directed the planning of an annual PC conference for geriatric patients with chronic illnesses.

Outcomes of Palliative Care

This review has shown that PC for patients with HF is related to positive outcomes including lowered drug consumption, lowered hospitalizations, improved quality of life, and enhanced trust between healthcare providers and patients. This review also revealed that one of the PC domains was psychological, which includes assessing mental health as well as the stress and coping mechanisms of patients and their family caregivers. As a result, the quality of life of patients with HF improved by reducing and preventing physical and psychological burdens. Furthermore, the review found that the ability to get continuous therapy across institutions improved patients' and family caregivers' communication and confidence in their PC team. PC physicians were described as listening more, being more empathetic, spending more time with patients, and having a holistic approach. Evidence from other contexts suggested similar findings. Patel et al. (2017) stated that PC consultation has been linked to higher patient satisfaction and decreased critical care unit admission in hospitalized patients with end stage liver disease. Additionally, Vanbutsele et al. (2020) stated that early integration of PC in cancer treatment improved quality of life toward the end of life. Improved collaboration among disciplines, as well as early assessment and goal setting were the outcomes of integrating PC into HF treatment at the healthcare provider level. In conclusion, this review indicated that the incorporation of PC services into HF therapy improved communication between the HF and PC teams. As a result, early examination and goal-of-care talks improved, and patient-centered care was achieved. Evidence from other contexts suggested similar findings. Evans et al. (2019) claimed that multidisciplinary discussions were successful with advanced cancer patients who would benefit from a palliative approach to care. Additionally, Zou et al. (2020) stated that early integrated PC delivered in a multidisciplinary collaborative

model improved management of dyspnea, increased participation in advanced care planning, and decreased hospitalization rates at the end-of-life for patients with chronic idiopathic pulmonary fibrosis. Furthermore, Zou et al. (2020) explained that models such as collaborative disciplines led to decreased hospital deaths, increased adherence to patient wishes for care and place of death, and enhanced patient and caregiver experiences.

Strengths and Limitations

In this integrative review, significant barriers, and facilitators, as well as the outcomes of implementing PC for HF patients, were emphasized. However, comprehending the review's strengths and limitations is crucial. One notable strength is that this integrative review is the first of its kind to shed light on the barriers and facilitators of providing PC for HF patients in Qatar. Additionally, the incorporation of quantitative, qualitative, and mixed methods studies offered a more holistic and integrated understanding of the state of science and care delivery for this patient population. Furthermore, the review's methodology was another strength, as it followed a rigorous framework outlined by Whitemore and Knafl (2005), which relied on a thorough search strategy to identify relevant articles. The support of an experienced librarian also assisted in the search technique, while a two-researcher conducted the evidence selection method diligently. Furthermore, effective data synthesis of the results was accomplished using a standardized data extraction tool. It is also noteworthy that the results of this integrative review were derived from current, peer-reviewed, and original literature published within the last ten years.

However, the review had certain limitations that need to be reported. The search was restricted to articles published only in English, which may have excluded relevant data published in other languages. Additionally, none of the research reviewed was conducted in Qatar, or the neighbouring nations of the Arabian Gulf. Therefore, it is important to approach the generalizability of the results of this integrative review to Qatar or this region with caution.

Implications and Recommendations

This integrative review has important implications for nursing practice. This review successfully highlighted the positive impact of PC treatments on adult patients with HF, emphasizing the need for a multidisciplinary approach involving PC clinicians, cardiac nurses, social workers, and physicians. The findings of this review can be utilized to support the creation of programs that facilitate effective team-based PC therapies. Enhanced communication skills and targeted education among multidisciplinary team members will improve healthcare professionals' understanding of PC-related issues, resulting in better PC delivery and a better quality of life for the patients. However, discussing death and dying openly is still not common practice in many cultures, and people often

put off having these conversations even when they are getting close to the end of their lives because it is such a difficult subject. Therefore, promoting open discussion and education on death and dying at all levels is critical. These discussions will eliminate the stigma and promote a better understanding of the provision of PC among individuals with HF and their family members. Future research may focus on determining the unique barriers and facilitators to the provision of PC for individuals with HF in Qatar. The findings of this integrative review can provide a framework for researchers to follow.

Conclusion

This integrative review provided a comprehensive understanding of the barriers, facilitators, and positive outcomes for the provision of PC among adult HF patients. Communication and knowledge deficits were identified as the main barriers for patients, family caregivers, and healthcare providers, whereas the lack of services configuration and financial support were barriers at the healthcare organization level. Key facilitators included patient and family education, communication, establishing professional roles and responsibilities, assessment tools, patient-providers relationship, providers education, PC care models, and financial assistance. PC services were associated with positive outcomes, including decreased drug use, hospital admission, and improved quality of life and satisfaction for patients. Healthcare providers also benefited from improved communication and early goal setting and assessment. These findings can be utilized to improve the implementation of PC services for this patient population through educational initiatives aimed at promoting understanding among healthcare providers, patients, and their family members.

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