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Health care providers roles in home health care services in Saudi Arabia: A literature review

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Abstract

Home health care (HHC) services in Saudi Arabia are rapidly expanding to address the growing needs of the aging population and individuals with chronic illnesses. This literature review aims to investigate the quality of HHC services and assess their reach within the Kingdom. The review synthesizes findings from studies on palliative care (PC) and HHC, focusing on nursing knowledge, family involvement, service utilization, and patient outcomes. Nurses and nursing students demonstrated low levels of knowledge about PC, highlighting the need for enhanced education and training. Family caregivers, primarily sons and daughters, played a central role in HHC, with home visits highly valued. However, PC services were underutilized, leading to prolonged hospital stays and aggressive end-of-life treatments. Cultural and linguistic challenges faced by the predominantly foreign nursing workforce may pose additional obstacles to PC implementation. The review also highlighted the emergence of HHC as a safe, cost-effective alternative to inpatient treatment for conditions such as cardiac rehabilitation and intravenous therapies. The findings emphasize the essential role of nursing in transitioning care from hospitals to homes. Future research should focus on developing targeted interventions to address knowledge gaps, strengthen the capacity of the PC nursing workforce, and explore the cultural dimensions of end-of-life care in Saudi Arabia.

Introduction

A substantial proportion of healthcare expenditures is directed toward hospital care and physician services. Consequently, efforts to reduce costs within the healthcare system often emphasize minimizing unnecessary hospital visits and unwarranted interactions with physicians (*The Role of Human Factors in Home Health Care*, 2010). Home health care (HHC) emerges as a cost-effective alternative to hospital admissions. HHC significantly contributes to reducing the length of hospital stays and preventing readmissions, thereby potentially lowering overall hospital care costs (Shepperd et al., 2009). Predominantly, elderly patients represent the largest demographic utilizing HHC services. Notably, the global population aged 65 years or older is projected to grow exponentially, increasing from an estimated 524 million in 2010 to nearly 1.5 billion by 2050. In response to the expanding elderly population and the rising prevalence of chronic disorders requiring preventive, curative, and rehabilitative care, HHC services have experienced rapid expansion. Such services are recognized for their ability to enhance the quality of life for elderly patients within the home care environment (Al-Modeer et al., 2013).

In Saudi Arabia, an HHC program was initially developed at King Faisal Specialist Hospital and Research Center, targeting patients with terminal cancer. Subsequentlythe Saudi Ministry of Health formally established an HHC program. The primary objective of this initiative is to “provide health services for all those

who are in need of them, wherever they may be, in an endeavor to alleviate the suffering associated with waiting in hospitals or traveling to receive care". These services are delivered in adherence to international standards while respecting the Islamic values and cultural traditions of Saudi society.

The quality of care provided through HHC plays a pivotal role in restoring or maintaining patients' physical and mental health (Hughes, 2008). Accordingly, this research aims to investigate the quality of home health care services and assess the extent of their reach within Kingdom of Saudi Arabia. Unlike prior studies that predominantly focused on patients' satisfaction with HHC services, this study concentrates on the perspective and experiences of the healthcare teams involved in delivering these services.

Home health care (HHC) encompasses a broad array of healthcare services provided within a patient's home environment, designed to address illnesses or injuries. It is typically less costly, more convenient, and equally effective as care delivered in a hospital or skilled nursing facility. Among the services offered through HHC are wound care for pressure ulcers or surgical incisions, education for patients and caregivers, intravenous and nutritional therapies, administration of injections, and monitoring of severe illnesses or unstable health conditions. It is essential to distinguish HHC from home care, as the former focuses on medically oriented services aimed at aiding recovery from injuries or managing medical conditions. In contrast, home care primarily involves non-medical support such as cooking, cleaning, and assisting patients with daily activities (Griffin & Griffin, 2008).

HHC delivers medical care to patients in their homes, enhancing their sense of security and confidence by avoiding extended hospital stays once their condition has stabilized. This approach also reduces the risk of hospital-acquired infections and minimizes readmissions for elderly patients and those with chronic illnesses. Additionally, HHC plays a crucial role in promoting health awareness and imparting health-related guidance to both patients and their families through interactions with the healthcare team during the provision of services (Ellenbecker et al., 2008). In Saudi Arabia, patients must meet specific eligibility criteria to qualify for HHC services. These criteria include a referral from a hospital physician, residence within a 50 km radius of the hospital, a stable medical condition, the homeowner's consent, a suitable home environment, and the presence of an available caregiver.

The concept of quality in healthcare encompasses six fundamental dimensions. Care must be safe, ensuring no harm is inflicted on patients. It should be effective, employing scientifically supported practices to achieve desired outcomes. Efficiency is also critical, focusing on the optimal use of healthcare resources. Patient-centered care aims to address individual patient needs, preferences, and expectations, including providing appropriate education and support. Furthermore, care must be timely, ensuring patients receive necessary interventions without delay, and equitable, offering services that do not vary in quality based on personal characteristics (Institute of Medicine, 2011).

Evaluating the quality of HHC services presents unique challenges due to the specific attributes of the home environment. For instance, the availability of reliable transportation significantly impacts the delivery and timeliness of care. Similarly, access to communication technologies plays a crucial role in ensuring effective coordination among healthcare providers, patients, and their caregivers. Another critical factor is the presence of a caregiver who is both willing and capable of assisting the patient during the care process.

Moreover, the home setting introduces additional variables that can influence the quality of care. Differences in home infrastructure, such as space constraints or the lack of medical-grade facilities, may affect the feasibility and efficiency of certain medical procedures. The interaction between healthcare providers and the patient's family members also become a critical component of care delivery, as families often assume significant roles in supporting the patient's recovery or managing chronic conditions. These complexities underscore the importance of tailored strategies and robust evaluation mechanisms to ensure that HHC services meet the diverse needs of patients in their unique home environments.

In the context of Saudi Arabia, these challenges are compounded by cultural and geographical factors. For example, rural areas may face greater difficulties in meeting the logistical requirements for HHC, such as caregiver availability or proximity to healthcare facilities. Additionally, adherence to Islamic values and traditions must be seamlessly integrated into the service delivery model, further emphasizing the need for culturally sensitive approaches in evaluating and enhancing the quality of care. These considerations highlight the intricate interplay of medical, environmental, and cultural factors in assessing the effectiveness and quality of HHC services.

Home healthcare (HHC) services are expanding rapidly in Saudi Arabia to address the growing needs of the increasing population of older adults and individuals with chronic illnesses. These services encompass a broad spectrum of healthcare options delivered in patients' homes to manage illnesses or injuries. However, the quality of HHC services varies significantly from one hospital to another. This research focuses on assessing the quality of home healthcare services within Saudi Arabia.

Feedback from HHC team members highlights several challenges in delivering care. These include missed home visits due to inadequate transportation, poor integration among team members, insufficient organizational structures, and other logistical issues. Despite these obstacles, a majority (75.7%) of HHC

providers believe their patients are satisfied with the services they receive. A study conducted in Madinah, Saudi Arabia, corroborates this finding, revealing that 90% of patients and caregivers expressed high or very high levels of satisfaction with home respiratory therapy services delivered through a home medical program center (Alhelali et al., 2016, p. 201). Nevertheless, HHC providers also acknowledge certain patient complaints, such as the limited duration of home visits, which many patients find insufficient. Approximately two-thirds of providers also note that patients generally demonstrate respect for the HHC team.

The findings from this research emphasize the potential for incorporating telemonitoring systems into HHC services to address existing gaps and enhance service quality. Notably, 43.2% of HHC providers agree that the service allows them to gain valuable insights into patients' lifestyles. Similarly, Carlisle, Warren, Scuffham, and Cheffins found that patients with poorly controlled type 2 diabetes and their healthcare practitioners experienced high levels of satisfaction and observed positive health and social outcomes through the integration of telehealthcare. Telemonitoring systems offer several advantages for improving HHC services. These include enhanced patient self-management, better understanding and monitoring of patients' conditions, improved medical compliance, and increased perceived support and security for both patients and their families. Telemonitoring also reduces stress for family members and enhances the overall quality, safety, and efficacy of HHC services (Madigan et al., 2013).

Further analysis reveals that 86.1% of HHC teams report noticeable improvements in patients' conditions as a direct result of the care provided through HHC services. Additionally, 89.2% of HHC providers have identified new health issues during their home visits, underscoring the critical role of these services in early detection and intervention. These findings align with prior research demonstrating that HHC interventions can significantly reduce hospitalization rates and lead to substantial health improvements among patients receiving home healthcare services.

In addition to the benefits of telemonitoring, the study suggests addressing structural and logistical challenges to improve service delivery. For instance, the development of efficient transportation systems for HHC teams can mitigate missed visits and ensure timely care. Moreover, fostering better integration and communication among HHC team members can streamline care coordination, improving the quality and consistency of services. Training programs to enhance the professional skills of HHC providers, coupled with robust patient and family education, can further enhance the overall effectiveness of HHC programs.

The study also emphasizes the importance of cultural considerations in HHC delivery, particularly in Saudi Arabia, where familial involvement and adherence to Islamic values play significant roles in healthcare decisions. Designing services that align with cultural expectations and values can enhance patient trust and satisfaction, further promoting the acceptance and success of HHC initiatives. By addressing these multifaceted challenges, HHC services in Saudi Arabia and beyond can continue to evolve, ultimately achieving better health outcomes for patients and their families.

Palliative care and home health care

Palliative care (PC) is a multidisciplinary medical specialty that emphasizes symptom management and the enhancement of quality of life (QOL) for individuals facing serious illnesses. The primary aim of PC is to alleviate suffering and optimize the QOL of both patients and their families (Ferrell et al., 2018). PC is recognized as suitable for all individuals with serious illnesses, regardless of the care setting, underlying diagnosis, prognosis, or age. However, access to PC services in home-based settings remains inadequate in many countries, including Saudi Arabia.

Home-based PC provides critical support to patients at any stage of illness, particularly those with life-limiting conditions who prefer to receive care in their homes and pass away in a familiar environment. Nurses, as key members of the PC team who interact most frequently with patients, families, and caregivers, play an indispensable role in ensuring the quality and availability of home-based PC services. Despite the recognized benefits of home-based PC and the vital role of nursing within this practice, there is limited research on this service in the Saudi context. This section below aims to synthesize existing knowledge on home-based PC in Saudi Arabia, with a particular emphasis on the nursing dimension, to inform and support the future development of this service. Due to the limited exploration of home-based PC in Saudi Arabia.

The Need for Home-Based PC in Saudi Arabia

Saudi Arabia demonstrates a substantial need for home-based PC due to its demographic and health trends. The nation, with an estimated population of 35,013,414,7 faces a significant burden of chronic diseases, currently affecting approximately 5,000,000 people. This figure is projected to rise dramatically to between 8,000,000 and 10,000,000 by 2030. Additionally, the Saudi Ministry of Health has projected a 5- to 10-fold increase in the cancer burden by 2030. Simultaneously, life expectancy has improved, reaching 76.2 years, while the proportion of elderly individuals is expected to increase from 3.4% in 2019 to 6.0% by 2030. These factors highlight the growing demand for comprehensive and accessible PC services across various care settings, particularly home-based PC.

Home-Based PC in Saudi Arabia

Although PC was introduced in Saudi Arabia in the early 1990s at King Faisal Specialist Hospital and Research Center it remains an emerging field with limited accessibility. Currently, PC in Saudi Arabia is primarily hospital-based and includes services such as inpatient palliative care units, inpatient consultations, and outpatient care models. Patients eligible for PC must demonstrate evidence of advanced and incurable diseases, possess an active do-not-attempt-resuscitation (DNAR) status, have ceased curative treatments, and consent to the transfer of care to PC services along with their families. Although HHC programs provide PC for some eligible patients, end-of-life care often shifts back to hospital-based services when home care becomes unmanageable. Additionally, Saudi Arabia lacks dedicated hospices and nursing homes, further limiting the scope of home-based PC (Alsirafy et al., 2015).

The Saudi Ministry of Health defines HHC as part of an integrated continuum of healthcare aimed at promoting, maintaining, or restoring health, enhancing independence, and mitigating the impact of disability and illness. The first HHC program in Saudi Arabia was established in 1991 at King Faisal Specialist Hospital for terminally ill cancer patients. Today, several hospital programs extend HHC services to diverse patient populations residing within a 50-kilometer radius. The initiation of HHC services typically occurs prior to hospital discharge and requires a referral and subsequent evaluation by the HHC team. These services encompass patient and caregiver support, home environment assessments, and continuity of care across different settings.

Despite the universal benefits of PC, including its applicability across all stages of illness, the utilization of PC services within HHC programs in Saudi Arabia is predominantly limited to terminal-stage care. This limitation persists despite the fact that all HHC programs in the country are publicly funded. Furthermore, the overall utilization of HHC remains inadequate, with only 2,262 nurses dedicated to HHC services and merely two HHC programs operating under the Ministry of Health's hospitals.

The underutilization of HHC and PC services in Saudi Arabia points to systemic challenges that warrant further investigation and strategic action. Limited infrastructure, including a shortage of specialized nurses and dedicated programs, hampers the expansion and accessibility of these services. Addressing these issues through investments in workforce development, enhanced training programs, and expanded service coverage is essential to meet the growing demand for home-based PC. Moreover, cultural considerations, such as family dynamics and the societal preference for home-based care, emphasize the importance of tailoring PC services to align with local expectations and values.

Efforts to expand home-based PC should also include the integration of advanced care planning and patient education. Providing patients and families with clear information about the scope and benefits of PC can enhance acceptance and participation in home-based services. Furthermore, leveraging technology, such as telemedicine and remote monitoring tools, could play a transformative role in bridging gaps in service delivery, ensuring continuity of care, and improving outcomes for patients with life-limiting illnesses in Saudi Arabia.

Nurses' Knowledge of Palliative Care (PC)

Evidence regarding nurses' knowledge of palliative care (PC) is drawn from two studies involving practicing nurses and three studies involving nursing students. Across all these studies, researchers utilized the Palliative Care Quiz for Nursing (PCQN) to assess knowledge, facilitating comparisons across diverse samples. The PCQN is scored on a scale from 0 to 20, with lower scores reflecting limited knowledge. Abudari et al. assessed PC knowledge among 395 nurses representing 19 countries who were working in Saudi Arabia. The mean PCQN score in this sample was 9.06, which indicates a low level of knowledge overall. Notably, nurses from Saudi Arabia scored the lowest, with a mean score of 7.06, compared to nurses of other nationalities surveyed. Similarly, Aboshaiqah evaluated knowledge among 365 nurses employed in one public and one private hospital in Saudi Arabia. The overall mean PCQN score was 8.8, again reflecting low knowledge. Both studies found that receiving PC education and training and having practical exposure to PC in clinical settings were associated with higher knowledge levels (A. E. Aboshaiqah, 2019).

In studies involving undergraduate nursing students, sample sizes ranged from 154 to 509 participants (Ismaile et al., 2017). Across these studies, mean PCQN scores ranged from 5.23 to 7.0, signifying low levels of knowledge among all groups. Exposure to PC content—whether through university curricula or external educational opportunities—was associated with improved knowledge. However, such exposure was infrequent, as nursing programs were reported to contain little or no content related to PC. These findings emphasize the critical need for incorporating PC education into nursing curricula to enhance knowledge and preparedness.

Studies consistently highlight low PC knowledge among both nurses and nursing students, underscoring the importance of specialized education and training. The persistent absence of robust PC content in nursing programs, as reported in studies involving students, further emphasizes the need for curricular reforms to address this gap.

Nurses' Knowledge of Home Health Care (HHC)

Two studies provide insight into nurses' knowledge of home health care (HHC). Al-Hazmi and Al-Kurashi conducted a study assessing self-perceived knowledge of HHC among 637 healthcare providers,

including 339 nurses and 27 administrators from eight private and three public hospitals. Using two self-administered questionnaires—one for administrators and another for healthcare providers—the study found low levels of perceived knowledge across all participants. Of the 27 administrators, 13 reported limited knowledge of HHC, and seven reported no knowledge at all. Journals (65%), university education (50%), and work experience (50%) were identified as the most common sources of information. Among the 339 nurses surveyed, 62.8% reported low levels of HHC knowledge, while 7.7% reported no knowledge. Nurses cited university education (41.6%) and hospital work experience (68.3%) as their primary sources of HHC information(Al-Hazmi & Al-Kurashi, 2005).

Another study by Asiri et al. examined the knowledge, attitudes, and practices related to fall prevention in the HHC setting among 80 healthcare professionals, including 24 nurses employed across 23 HHC centers. Survey results indicated that nurses' knowledge of HHC was distributed across low (n=6), moderate (n=10), and high (n=7) levels. Additionally, the study found that nurses were more likely than other healthcare professionals to assess and document patients' fall risks within HHC settings(Asiri et al., 2018).

Al-Hazmi and Al-Kurashi's findings reflect generally low knowledge of HHC among hospital-based nurses, whereas Asiri et al. found moderate to high knowledge among HHC-specialized nurses. The discrepancy likely stems from differences in sampling and focus areas, with the former study assessing general HHC knowledge and the latter emphasizing a specific aspect of HHC practice. The limited number of studies on nurses' knowledge of HHC and the absence of research involving nursing students highlight the need for greater emphasis on HHC in nursing education and training.

Studies of the Nursing Workforce

Two studies shed light on the nursing workforce in Saudi Arabia, which is predominantly composed of foreign nationals. Alrasheedi et al. explored factors influencing nurses' and nursing students' intentions to work in oncology, surveying a sample of 444 participants from five major hospitals(Alrasheedi et al., 2021). The study examined the relationships between PC knowledge, attitudes toward caring for dying patients, self-efficacy, job satisfaction, and future intentions to practice oncology nursing. The participants included three groups: undergraduate nursing students (n=178), oncology graduate students (n=33), and oncology nurses (n=263). Among the oncology nurses, 96.6% were foreign-born. Across all groups, a more positive attitude toward caring for dying patients was the only significant predictor of intentions to pursue oncology nursing. The researchers concluded that enhancing education and training in end-of-life care could help expand the workforce of nurses prepared to deliver PC to oncology patients.

In another study, Abudari et al. explored the experiences of non-Muslim nurses caring for terminally ill patients and their families using qualitative methods. Three main themes emerged: family involvement, end-of-life preferences, and nursing challenges. Families often controlled end-of-life decisions and provided meticulous physical and spiritual care to the patient(Abudari et al., 2016). Acceptance of end-of-life care varied significantly among families, with those in denial or holding out hope for recovery less likely to accept such care. Nurses generally respected patients' cultural and spiritual practices, though some expressed concerns about the safety of practices such as using herbal remedies or engaging in ritual prayers while critically ill. A significant challenge for nurses was the lack of involvement of palliative care teams, leading to overly aggressive treatments. Additional challenges included difficulties communicating in Arabic and limited understanding of patients' cultural and spiritual needs.

These studies, while diverse in focus and methodology, underscore the complexities faced by a predominantly foreign-born nursing workforce in Saudi Arabia. The influence of culture, language barriers, and the high proportion of non-Saudi nurses highlight the importance of training programs that incorporate cultural and linguistic competencies. The findings also point to the need for enhanced support for nurses working with terminally ill patients, both to improve patient outcomes and to address the unique challenges faced by the multinational nursing workforce. Future research should focus on developing targeted interventions to address these gaps and strengthen the capacity of the PC nursing workforce in Saudi Arabia.

Caregiver Studies

Two studies examined informal caregivers associated with palliative care (PC) or home health care (HHC) services. In the first study, Ghazwani et al. analyzed burden and distress among 78 caregivers of terminally ill PC patients admitted to a hospital in the southern region over one year. The average age of participants was 39.5 years, and 58.8% were men. Sons (50%) and daughters (30.8%) constituted the majority of caregivers. Almost all caregivers reported experiencing some level of burden, with 39% reporting moderate to severe burden. Higher burden levels were associated with older age and familial relationships other than parent-daughter. Daughters also reported lower levels of distress compared to other family caregivers.

In the second study, researchers assessed satisfaction levels among 240 caregivers of patients receiving HHC services from a single hospital. The median age of the caregivers was 45 years, with more than half being men. Sons and daughters accounted for 51.4% of caregivers. Overall, satisfaction with HHC services was high, with 82% of caregivers reporting that patients received appropriate health care and 83% expressing that the services improved their confidence in caregiving. Most caregivers expressed a preference for home care,

believing it was better for both their well-being and that of the patient compared to inpatient care. Higher satisfaction was associated with older age, being female, and frequent HHC visits(Al-Khashan et al., 2011).

While these caregiver studies focused on different care populations, both identified sons and daughters as most caregivers, with an average age between 40 and 45 years. Despite men being the majority in both samples, daughters reported less burden, and women reported greater satisfaction with HHC services, suggesting that gender influences caregiver experiences and roles in Saudi families.

Palliative Care Service Use and Outcomes

Seven studies explored patterns and outcomes related to emergency room and hospital-based PC admissions, with sample sizes ranging from 103 to 887 patients. Several studies identified delayed referral to inpatient PC services, whether through emergency room admissions or other inpatient pathways. Direct admission to the PC unit (PCU) was less common, accounting for 36% of cases, compared to 64% for inpatient transfers, further reflecting delays in PC utilization. One study reported mean and median survival times of 19 days following the first PC referral, while another study found that 45% of physicians waited until the day before death to refer patients to PC services. Sadler et al. documented underutilization of PC services, with only 22 out of 103 patients referred through the emergency room having received any PC care in the year prior to death.

Despite the underutilization of PC services, several studies highlighted the benefits of these services, such as reduced hospital length of stay, better opioid pain management, slightly extended survival times, and avoidance of unnecessary aggressive treatments. However, one study found that 85.7% of patients still died in hospitals due to the lack of home-based PC options (Sadler et al., 2020).

These findings indicate that PC services are predominantly hospital-based and often underutilized. Referral to PC services tends to occur close to death, resulting in longer hospital stays, unnecessary treatments, and inadequate pain management before referral.

Home Health Care Service Use and Outcomes

Two studies examined patterns of morbidity and mortality among HHC patients, including one that focused on the COVID-19 pandemic (Al-Modeer et al., 2013). Both studies reported that the majority of HHC patients were elderly and suffered from chronic conditions. In one study involving 880 participants, 89% had two or more morbidities, with hypertension (59.1%), diabetes mellitus (57.3%), and stroke (34.9%) being the most common. In their analysis of health patterns and mortality risk during COVID-19 among 101 patients, Alqahtani et al. reported a high fatality rate (26.7%) among elderly HHC patients. Nearly half of these patients required hospitalization, and of those admitted, half died in the inpatient setting. The authors attributed these high mortality rates to advanced age and comorbidities.

Three studies compared outcomes and costs of inpatient versus home management for various conditions. Mutwalli et al. evaluated the effects of a home-based cardiac rehabilitation (CR) program for post-coronary artery bypass graft patients. Participants were randomly assigned to a control group receiving standard hospital care (n=21) or an intervention group receiving home-based CR (n=28). The mean ages of participants in the intervention and control groups were 56.75 and 54.4 years, respectively. The intervention group demonstrated significantly higher quality of life (QOL), psychological well-being, and physical functioning, along with fewer hospital readmissions compared to the control group. The authors concluded that home-based CR provided superior outcomes compared to hospital care.

Two other studies evaluated the outcomes and costs of home IV infusion programs for deep vein thrombosis (DVT) treatment (34, n=61) and antibiotic administration (35, N=152). Both programs involved brief hospitalization followed by HHC with frequent nursing visits, showing favorable outcomes and significant cost savings. The mean age of participants ranged from 48.4 to 52.8 years. In the first study, the average nursing time for home patients was 4.2 ± 2.3 days, compared to 16.4 ± 11.5 days for inpatients. Total inpatient costs, including hospital stays and physician fees, averaged $2,387, compared to $1,000 for home patients. Similarly, in the second study, the cost of home treatment was 644,627 Saudi Riyals (SAR), while inpatient care cost 1,368,750 SAR(Baharoon et al., 2011). Both studies concluded that home treatment was safe, cost-effective, and should be expanded.

These five studies provide insight into the diversity of HHC services. While the first two studies described older patients with chronic morbidities, the last three focused on slightly younger patients receiving home treatment for conditions traditionally managed in hospitals. The absence of any mention of home-based PC services is notable given the range of conditions examined.

Patient Satisfaction and Quality of Life

Two studies assessed quality of life (QOL) among patients. Aboshaiqah et al. examined the relationship between QOL and satisfaction with PC among 130 cancer patients (A. Aboshaiqah et al., 2016). The sample primarily consisted of women (79%), aged 17 to 86 years, with more than half diagnosed with breast cancer (53%). The study found that emotional functioning was strongly associated with patient satisfaction.

In another study, Al-Surimi et al. investigated factors influencing QOL among 253 patients receiving HHC services through the National Guard ministry in Riyadh. Similar to Aboshaiqah's study the sample was

predominantly female (63%), over 60 years old (73.3%), and living with chronic diseases. QOL scores were highest in the social relationship and environment domains, while the physical domain scored the lowest. Being married, having psychological problems, suffering a stroke, and experiencing multiple illnesses were all independently associated with overall QOL.

Although these studies focused on different services and variables, both emphasized the critical role of psychological function in determining patients' QOL. However, no studies were found that specifically addressed psychological well-being in PC or HHC patients, indicating a gap in the literature.

Discussion

This integrative literature review is the first to consolidate studies on palliative care (PC) and home health care (HHC) in Saudi Arabia. Although the review initially aimed to focus on home-based PC, it was broadened to encompass PC and HHC more generally due to the scarcity of studies. Particularly notable was the lack of research on nursing practices, including cultural aspects of care, and studies exploring the perspectives of patients and caregivers.

Despite the limited body of research on PC and HHC in Saudi Arabia, the available evidence allowed preliminary conclusions to be drawn in four main areas: (1) nursing knowledge of PC, (2) the role of family in patient care, (3) underutilization of PC, and (4) the safety and cost-effectiveness of home treatments for conditions typically managed in hospitals.

Several studies reported low levels of nursing knowledge about PC among nurses and nursing students, as measured by the Palliative Care Quiz for Nursing (PCQN) (37). These results are consistent with findings from similar studies conducted among nurses in Jordan (Al Qadire, 2014) and Qatar (Al-Kindi et al., 2014) using the same assessment tool. In contrast, little research has addressed nurses' knowledge of HHC, suggesting that this area of nursing practice remains underdeveloped.

One study on nursing practice, along with two studies on caregivers, emphasized the significant role of families in caring for chronically and terminally ill patients across different settings. Family caregivers, primarily sons or daughters, played a central role in HHC, and home visits from HHC services were highly valued. One study identified caregiver burden ranging from moderate to severe, highlighting a critical issue that warrants further investigation. Additionally, HHC was associated with positive patient outcomes, such as improved quality of life (QOL). These findings align with those of a recent narrative review that identified multiple benefits of home-based PC, including enhanced patient outcomes.

Another prominent finding was the underutilization of PC services, which led to prolonged hospital stays and the use of unnecessarily aggressive treatments during end-of-life care. Although families demonstrated dedication to supporting their dying relatives, many lacked the confidence and resources necessary to provide adequate care at home. Consequently, the majority of deaths occurred in hospitals. Similar patterns were observed in neighboring countries. For instance, studies of cancer-related deaths in Kuwait (Alshemmari et al., 2015) and Qatar (Mohsen et al., 2014) found that most deaths occurred in hospital settings. Additionally, all studies on PC focused exclusively on end-of-life care, indicating that the scope of PC in Saudi Arabia is restricted to this area. This aligns with findings from research in Bahrain, where clinicians perceived PC as synonymous with hospice or end-of-life care. Clinicians in that study also described challenges in initiating end-of-life discussions, as family members often opposed disclosing terminal diagnoses to patients. Al-Awamer and Downar identified similar barriers to PC implementation in the Middle East, such as unfamiliarity with PC's role and benefits, as well as cultural constraints. Understanding and addressing cultural dimensions of end-of-life care in PC is crucial. Furthermore, the cultural and linguistic challenges faced by the predominantly non-Muslim nursing workforce in Saudi Arabia may pose additional obstacles.

Finally, the review highlighted the emergence of HHC as a viable alternative to inpatient treatment, particularly for cardiac rehabilitation and intravenous therapies. All studies demonstrated that home management produced treatment outcomes that were either superior or comparable to inpatient care, with two studies documenting substantial cost savings. These findings underscore the safety, feasibility, and cost-effectiveness of home-based treatments for complex conditions traditionally managed in hospitals. Since home treatments in these studies depended heavily on frequent nursing visits (Algahtani et al., 2013), the evidence also emphasizes the essential role of nursing in transitioning care from hospitals to homes.

Conclusion

This integrative review highlights the significant gaps and opportunities in palliative care (PC) and home health care (HHC) services in Saudi Arabia. Despite the limited body of literature, the review identifies several critical themes. Nursing knowledge of PC is notably low, consistent with findings in neighboring countries, pointing to the urgent need for enhanced education and training. Similarly, knowledge and application of HHC practices remain underdeveloped, with few studies focusing on the role of nursing students or on advancing HHC-specific competencies.

The role of family in the care of chronically and terminally ill patients emerged as a crucial component of both PC and HHC. Family caregivers, predominantly sons and daughters, bear significant burdens, including moderate to severe distress, yet often report high satisfaction with HHC services. These findings underscore the

importance of strengthening caregiver support systems, particularly in cultural contexts where familial caregiving is central to health care delivery.

Underutilization of PC services remains a pressing issue, with most referrals occurring near the end of life. This delays the benefits of PC, resulting in unnecessarily aggressive treatments, prolonged hospital stays, and missed opportunities for holistic care. Cultural and systemic barriers, such as reluctance to discuss terminal diagnoses and the limited availability of home-based PC options, exacerbate this issue. Addressing these barriers is essential to expanding PC services beyond end-of-life care and aligning them more closely with global best practices.

HHC demonstrates significant potential as an alternative to inpatient care, particularly for complex conditions such as cardiac rehabilitation and intravenous therapy. Studies reveal that home-based treatments are not only safe and effective but also cost-efficient, reducing hospital readmissions and enhancing patient outcomes. The reliance on frequent nursing visits further emphasizes the pivotal role of nurses in the successful implementation of HHC programs.

The findings of this review call for targeted interventions to address the systemic, cultural, and logistical challenges limiting the reach and effectiveness of PC and HHC in Saudi Arabia. Investments in workforce development, including culturally sensitive training for a predominantly foreign-born nursing staff, are critical. Additionally, integrating technology such as telemonitoring and expanding caregiver education can bridge gaps in service delivery. By addressing these multifaceted issues, Saudi Arabia can enhance its PC and HHC systems to better meet the needs of its aging and chronically ill population, ultimately improving quality of life for patients and their families.

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