


Home Palliative Care during the COVID-19 Pandemic: A Scoping Review

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Abstract

Palliative care (PC), which improves the quality of life for patients with serious illnesses, can be offered in multiple settings, such as the hospital, community, and home. The trend toward delivering PC at home has been recently accelerated during the COVID-19 pandemic. The pandemic has created challenges for patients with serious illnesses who have been proven to be susceptible to serious COVID-19 illnesses. This review of the literature presents research studies on home PC (HPC) during the pandemic. Databases (PubMed, Scopus, and Web of Science Core Collection) were searched. Twelve research/case studies were found to be relevant. These articles gathered information either through qualitative (surveys/interviews) methods or medical records. Most qualitative articles focused on perceived challenges and opportunities from HPC professionals' perspectives. Adopting telehealth was frequently discussed as a key tool to adjust to the pandemic. In general, HPC professionals and patients had a positive attitude toward telehealth, and this attitude was much more pronounced among professionals than patients. Among HPC professionals, some reports indicated that their burnout rates reduced, and job satisfaction increased during the pandemic. Regarding clinical and cost outcomes, there is a gap in the literature on HPC during the pandemic. In conclusion, despite challenges, it seems that the pandemic has gifted some long-term opportunities for promoting HPC in combination with telehealth. COVID-19 will not be the last pandemic, and we should be prepared for the next one by updating policies and building concrete infrastructure for HPC.

Keywords

COVID-19, home, hospice, palliative care, telehealth, telemedicine

Introduction

Palliative care deals with improving the quality of life for patients with serious illnesses.^{1,2} Although it can be offered anytime during the course of illnesses, it is usually delivered during the last months of life. The palliative care team is multidisciplinary and consists of physicians, nurses, social workers, and other specialists to cover a range of conditions from pain to emotional/financial challenges of patients, their families, or caregivers.^{1,3} In addition, the palliative care team discusses with patients advance care planning, a process that enables patients to express their values and preferences for future care.⁴

Palliative care can be offered in different settings, such as hospitals, hospice facilities, out-patient clinics, nursing homes, and home.⁵ Home has been the desired place to stay and die for most patients if the burden is not too high for family members.⁶ Palliative care has been increasingly moving from hospital settings toward community settings and home. This trend combined with telehealth have been recently accelerated due to the COVID-19 pandemic since patients with serious illnesses are particularly susceptible to COVID-19 because of age, the nature of the illness, and a suppressed immune system.⁷

Advantages of home palliative care include (i) cost-effectiveness since these services reduce hospital admission and are lower in costs than institutional care⁸; (ii) culturally responsive; (iii) familiarity (patients are more comfortable at their own home), (iv) expanding access to palliative care in remote areas,⁹ and (v) delivering a patient-centered care by individualizing care adjusted for patients and their caregivers.^{10,11} Multiple challenges also exist, notably, reimbursement to providers and issues around caregivers, such as availability of expert caregivers, caregiver burnout, and their payment.¹² At the beginning of the COVID-19 pandemic, barriers related to the reimbursement of health care providers have been urgently addressed.⁹ In fact, COVID-19 lockdown has led to easing payment regulations for health

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professionals' telehealth services, which has significantly contributed to promoting home palliative care since then.⁹

The rapid turn of healthcare delivery to a home mode and telehealth might be particularly challenging for palliative care patients since they are usually elderly population struggling with cognitive decline, learning new technology, and arranging virtual visits.^{13,14} Therefore, it is crucial to revisit the challenges of home palliative care during the COVID-19 with many restrictions in place and technologies on the rise. Multiple research studies have been published on challenges and opportunities of home palliative care during the COVID-19,^{13,14} but they have not been reviewed yet. Current review articles on home palliative care during the COVID-19 pandemic are not a literature review of research articles.¹⁵ Some review articles focused on nursing homes and care homes.¹⁶ However, the challenges and opportunities of home palliative care and care homes could be different, particularly regarding telehealth and loneliness.¹⁵ For example, during the pandemic, loneliness, but not internet accessibility, was reported to be a major issue in care homes,¹⁶ while internet accessibility might be a major issue in palliative care at home.^{13,14} In care homes, COVID-19 hit hard patients¹⁷ while this increased risk was not an issue for home palliative care.

The present article reviews research/case studies on home palliative care during the COVID-19 pandemic. We included articles from different cultures and countries in order to have a broader view of this evolving field of palliative care.^{13,14,18} Most of the available articles were qualitative studies,^{13,18} and some were quantitative based on medical records.¹⁹ Qualitative studies focused mainly on the experiences/perception of home palliative care professionals,^{13,20} and less on the experience of patients.^{13,14} Consequently, the current review article aimed to answer the following questions:

1. What do qualitative studies (surveys/interviews) reveal about the experiences/perception of patients/caregivers/health professionals on home palliative care during the COVID-19 pandemic?
2. What do quantitative studies based on medical records reveal about the clinical outcomes/cost/usage of home palliative care during the COVID-19 pandemic?
3. What are the clinical, policy, and research implications of home palliative care literature during the COVID-19 pandemic?

Methods

A comprehensive search was conducted to find research studies (qualitative, cross-sectional, evidence-based, and clinical trials) and case studies that investigated home palliative care in some manners during the COVID-19 pandemic from 2019 till the end of December 2021. Language restriction was not applied during the search. Three electronic databases, including PubMed, Scopus, and Web of Science Core Collection were searched. The keywords for searching were

“home palliative care COVID-19” and “hospice home COVID-19.” The subsequent output was inspected regarding the title and abstract of each article for inclusion. The non-relevant articles and duplicates were excluded. Then, the citations (using google scholar) and references of the included articles were inspected to find additional articles (backward searching). We called it home palliative care when palliative care was delivered at home either face to face or through telehealth. The descriptions of included articles were summarized without using any software.

Results

Figure 1 summarizes the study selection and exclusion and inclusion processes. Our search yielded a total of 428 articles. We discarded 276 articles for being duplicates. The remaining articles were then screened for relevance to our topic. In total, 138 articles were excluded based on the title or abstract. Of these, 2 articles were not in English. Our final review focused on 12 articles that investigated home palliative care during the COVID-19 pandemic. The articles were mainly based on qualitative data (survey/interview).^{13,14} A few were based on medical records¹⁹ or case studies.^{21,22} Table 1 indicates a summary of 12 reviewed articles. Some of the included articles investigated home palliative care in addition to palliative care in other settings.^{18,20} One article was derived from multi centers from different counties.²⁰ Most focus on the perception of care from health care perspectives²³ rather than patients¹⁴ (Table 1).

Discussion

Providing palliative care at home for patients with serious illnesses has become crucial during the COVID-19 pandemic.¹³ The present article reviewed the existing literature regarding this issue. The available literature mostly focused on qualitative studies with a small sample size¹⁸ rather than quantitative studies based on medical records from a large number of patients.²⁷ The qualitative studies also mainly focused on the experience of home palliative care professionals²⁴ rather than patients.¹⁸ Though there is a paucity of published research in terms of home palliative care during the pandemic, some important clinical, policy, and research implications have emerged from these data that were discussed at the end.

Qualitative Studies (Survey/Interview-Based) on Home Palliative Care During the COVID-19 Pandemic

Several articles have investigated the perceptions of home palliative care professionals, caregivers, and patients during the COVID-19 pandemic, unveiling multiple challenges, such as difficulty with technology use, physical barriers/social distancing between the professionals and patients, and integrating infection prevention/control measures into care.^{13,18,25} At the same time, opportunities have arisen for home palliative

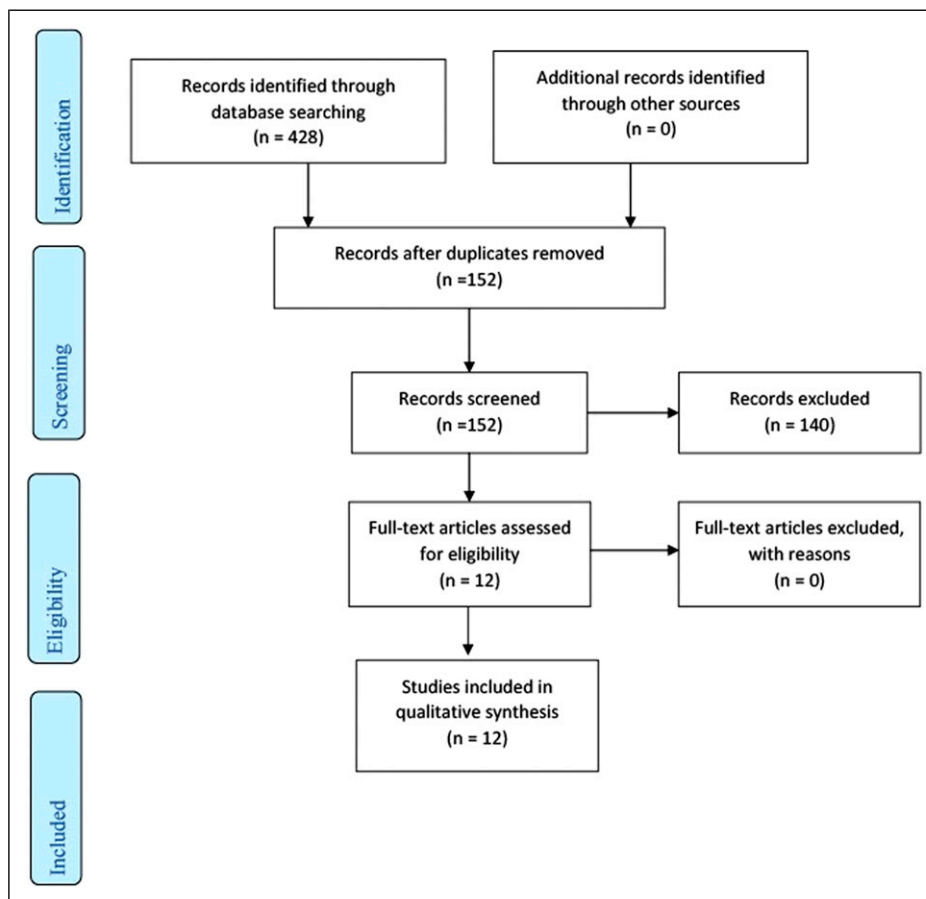


Figure 1. PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow diagram of the present review.

care during the pandemic, due to multiple factors, such as the ease of regulation for telehealth reimbursement and improving the existing technologies.^{9,20} Moreover, telehealth by saving travel time has demonstrated to contribute to offsetting the shortage of palliative care professionals.^{9,14}

One of the first publications on home palliative care during the pandemic was reported from a single center in Australia.¹³ The palliative care community center used to rely on face-to-face visits with limited use of telehealth. However, after the pandemic, the center shifted its services from face-to-face to mostly telehealth. Eastman et al. surveyed patients and health care professionals regarding their experiences with telehealth (telephone calls or video conferencing) (April–May 2020).¹³ The survey was mailed to all eligible patients and emailed to palliative care professionals. Data were analyzed descriptively. Totally, 78% of patients used telehealth during the study period and the majority had been already active patients of the center. Of them, 64% reported that their telehealth consultations were via telephone alone. Seventy-one percent of patients expressed that their needs were met. For those who had issues, problems were mainly related to sensory deficits, technological problems, and unfamiliarity with telehealth. Sixty percent of patients

indicated that their choices for future palliative care were a combination of face-to-face and telehealth consultations. Fifty-four percent of professionals had issues with video conferencing, and 41% of them with telephone calls. Main telephone-related issues were lack of visual contact and ability to observe facial cues/body language and form a therapeutic relationship. In contrast, concerns about video conferencing centered on patients' familiarity with new technology and technological problems. The preference for most professionals was video conferencing rather than telephone calls, and all preferred face-to-face communication to telehealth. Nevertheless, 89% preferred face-to-face and telehealth consultations. Professionals mostly preferred video conferencing over telephone calls, but patients were uncertain about their preferences between these 2 virtual delivery modes. Regardless of reporting issues, the preference of both groups was a combination of face-to-face and telehealth consultations for palliative care delivery.¹³ Two case studies also found some similar results.^{21,22} Silva et al. investigated the benefits and barriers of home telemedicine in a terminally ill patient in New York, USA. While benefits to home palliative care during the COVID-19 pandemic included (i) limited exposure to infectious disorders, (ii) continuity of care,

Table 1. A summary of the Twelve Articles on Home Palliative Care Reviewed in the Present Study.

Reference#	Purpose	Patient setting	Article type	Population ^a ; country	Main findings
13	To understand patient and health care professionals' perspectives on use of telehealth (phone call or video conference) within a single community care center in Australia that rapidly shifted away from direct patient contact to telehealth	Home	Survey-based	Patients N = 74 Professionals N = 22; Australia	<ul style="list-style-type: none"> - Both patients and providers were comfortable using telehealth, but had a range of issues - The preference of both groups was a combination of face-to-face and telehealth consultations
14	To describe the revision of 2 National Institutes of Health funded community-based palliative-focused clinical trials serving underserved populations to facilitate remote subject enrollment and examine its impact	Home	Survey-based	Patients N = 19; USA	<ul style="list-style-type: none"> - Limited access to the internet and internet-enabled devices and discomfort with technology - Lack of familiarity with technology increased the time for remote connection - Patients with cognitive and/or sensory deficits were at higher risk of fatigue during remote visits - Uncomfortable patients with videoconferencing through zoom expressed a preference for phone visits - Reduced travel time made scheduling remote study visits more efficient
18	To investigate challenges faced by both patients and caregivers during the COVID-19 pandemic, and types of interventions offered by social workers' team	Home and in-hospital (did not clarify % of each setting)	Survey-based	Patients N = 9 Family caregivers = 9; India	<ul style="list-style-type: none"> - Telephonic and video calls were important in supporting patients and caregivers - Direct home-based support was necessary for some patients and families
20	To map and understand specialist palliative care services innovations and practice changes in response to the COVID-19 pandemic	Home (57%) and other settings	Survey-based	Specialist palliative care providers, N = 458; multiple countries	<ul style="list-style-type: none"> - Specialist palliative care services were flexible, highly adaptive and have adopted low-cost solutions ('frugal innovations') - Financial support and greater collaboration were recommended to reduce duplication of effort and optimize resource
21	To share experiences with 3 patients with advanced malignancy in providing end-of-life care during COVID-19 lockdown	Home	Case study	Patients N = 3; India	<ul style="list-style-type: none"> - Telemedicine services with an audio-visual facility can be effective at providing end-of-life care, particularly in rural areas
22	To describe a case illustrating the benefits and barriers of telemedicine in the care of an oncology patient	Home	Case study	Patients N = 1; USA	<ul style="list-style-type: none"> - Benefits to home palliative care during the pandemic included (i) limited exposure to infectious disorders, (ii) continuity of care, (iii) therapeutic relationship, and (iv) coverage and reimbursement because of waivers related to telemedicine coverage - Barriers were (i) lack of physical exam, (ii) telemedicine technical issues, and (iii) difficulty with completion of advance directives

(continued)

Table 1. (continued)

Reference#	Purpose	Patient setting	Article type	Population ^a , country	Main findings
23	To learn about response of Australian specialist palliative care services to the COVID-19 pandemic, impacts on care quality, and perceived benefits/disadvantages for palliative care clients	Home and other settings (did not clarify % of home setting)	Survey-based	Professionals N = 28; Australia	<ul style="list-style-type: none"> - Concerns were inadequate support for self-management, psychosocial needs and bereavement for patients, and pressures on staff capacity and wellbeing - Rapid implementation of telehealth across Australia can promote palliative care in the longer term
24	To understand the impact of the COVID-19 pandemic on the hospice and palliative workforce and service delivery	Home and other settings (did not clarify % of home setting)	Survey-based	Professionals N = 36; USA	<ul style="list-style-type: none"> - 70% of respondents reported an increase in specific palliative care services - Qualitative comments described negative impact of the pandemic on the emotional well-being of patients, families, and staff
25	To understand how home palliative care professionals were impacted by the COVID-19 pandemic, describing changes and challenges in their daily work and their responses to the pandemic	Home	Telephone semi-structured interviews	Professionals N = 30; Italy	<ul style="list-style-type: none"> - The first wave of the pandemic brought many challenges and stressors for home palliative care professionals, but they reported a satisfaction with their critical role in caring for patients
26	To investigate the impact of the COVID-19 pandemic on burnout and psychological morbidity among home palliative care professionals	Home	Survey-based	Professionals N = 145; Italy	<ul style="list-style-type: none"> - Home palliative care professionals presented a lower burnout frequency and higher level of personal accomplishment compared to 2016
19	To highlight home-based care strategies during the COVID-19 lockdown	Home	Medical-record data	Patients N = 280; India	<ul style="list-style-type: none"> - Physical symptoms (24%), morphine drop-off (19%), psychosocial support (15%), end of life care (33%), and procedures (9%) were the major indications of visits - Continuity of care through home visits will ensure better management of patients
27	To investigate use of hospice care services (at home and hospitals) before and during the COVID-19 pandemic	Home and other setting	Medical-record data	Patients (N = 19 900); Taiwan	<ul style="list-style-type: none"> - Hospice home care services were maintained during the pandemic, while the utilization of hospice inpatient care services reduced

^aStudy population was patients and/or professionals and/or caregivers.

(iii) therapeutic relationship, and (iv) coverage and reimbursement because of waivers related to telemedicine coverage, barriers were found to be (i) lack of physical exam, (ii) telemedicine technical issues, and (iii) difficulty with completion of advance directives.²²

Dhavale et al. investigated a palliative care center in India, where the COVID-19 situation altered the interaction of the social workers' team from being face-to-face to mainly on the phone.¹⁸ The authors analyzed challenges experienced by patients (N = 9) and caregivers (N = 9) during the pandemic, and the intervention type offered by the social workers' team (N = 7) to deal with these challenges. The setting was either inpatient or home. Patients experienced a range of challenges, such as physical suffering because of unavailability of medicines and nursing care, emotional suffering because of the shortage of cancer medications, loss of jobs, loneliness, and spiritual suffering because of the uncertainty of fulfillment of last wishes.¹⁸ Caregivers reported issues included feeling guilty because of the inability to comfort their relative's suffering; the pressure of non-stop caregiving, poor information about current services, being unconfident to seek assistance, and grieving of a dying family member. The social workers' team intervened with these families through phone calls, video chats, and connecting them with the palliative care home team that visited patients in need to maintain the continuity of care.¹⁸ The social workers' team provided active listening, hope, compassion, and networking to assist patients and families with food, transportation, medical equipment, and end-of-life wishes. Most of these supporting services by social workers were facilitated through telephonic and video calls, though it was necessary for some instances to provide emotional support to patients and families at home to alleviate loneliness feeling and offer profound support.¹⁸

Varani et al. investigated the impact of the COVID-19 pandemic on burnout and psychological morbidity among home palliative care professionals in Italy.²⁶ Home palliative care physicians and nurses participated in a survey (COVID2020) through emails, and the results were compared with those in 2016 in the same setting (BURNOUT2016), with the same questionnaires, and mostly the same participants (70%). Intriguingly, during COVID2020 compared to BURNOUT2016, home palliative care professionals experienced a lower rate of burnout and a higher level of personal accomplishment, but a higher frequency of psychological morbidity. The authors concluded that the awareness of being at the frontline and the feeling of being responsible for their terminally ill patients might have caused palliative care professionals' psychological distress during the pandemic. However, this condition might have led to professional satisfaction, personal achievement, and reduced burnout.²⁶ The results are consistent with another study from Italy, which reported a higher rate of satisfaction among home palliative care professionals with their key roles in taking care of high-risk patients during the COVID-19 pandemic.²⁵ However, in the USA, Kates et al. found the devastating impact of the lockdown and social distancing measures on the mental health of

patients, their families, and professionals. They surveyed 36 palliative care workforces, including those serving patients at home, nursing homes, hospice facilities, and hospitals.²⁴ Whether the difference in the results might reflect the inclusion of the workforce from different settings (hospitals, hospice facilities, and nursing homes) in addition to home in the latter study needs more investigations. Another source of the difference in the results might be related to telehealth usage. Neither of these studies did analyze their results based on telehealth usage.²⁴

Dunleavy et al. investigated specialist palliative care services innovations and practice changes in response to COVID-19 in multiple countries and multiple settings, including home. In their survey, 57% were members of a home palliative care team.²⁰ Changes were found to be streamlining, enhancing the outreach of services, technology use, and implementing staff wellbeing innovations. Barriers were found to be excess information, fear and anxiety, funding, and duplication of effort.²⁰ Enablers were staff flexibility, collaborative teamwork, pre-existing infrastructure, and strong leadership. In total, they found that specialist palliative care services, in response to COVID-19, were quickly changed with the implementation of low-cost solutions, called 'frugal innovations'.²⁰ Luckett et al. also found similar findings in their study, in which, they surveyed specialist palliative care professionals regarding their response to COVID-19 in Australia.²³ Rapid implementation of telehealth in the home palliative care setting and pre-existing infrastructure for telehealth was reported as enablers for establishing home palliative care services during the pandemic and also as an opportunity for promoting palliative care in the future.²³ Technical barriers to telehealth have also been identified, including time for set-up, telehealth equipment costs for some patients, lack of access to high-speed internet in remote areas, and system breakdown.^{20,23}

From the theoretical point of view, internet accessibility/device comfortability issues must be much more pronounced among minorities receiving home palliative care. This has been confirmed by a recent study in the USA by Brody et al. who had to modify their research protocols on "community-based palliative-focused clinical trials" in the middle of the pandemic. Brody et al. shifted their National Institutes of Health-funded project serving Hispanics from mainly face-to-face to a remote mode. Lack of internet, familiarity with the zoom, app, and access to technology were found major enrollment barriers to the program. They also reported that all screened patients (100%, N = 19) during the pandemic were uncomfortable with videoconferencing through the Zoom app expressing a preference for phone calls.¹⁴ Patients with significant cognitive and/or sensory deficits were at higher risk of experiencing fatigue during televisual study visits. Despite these limitations, the authors found some advantages for remote palliative care. Remote visits enabled flexibility, more interviews in a day, and fewer scheduling conflicts due to saving travel time. Hundred percent and 86% of patients reported remote navigator visits as very satisfying and very helpful, respectively. Overall, remote processes proved to be

more time-efficient, though technology accessibility and training staff should be considered to ensure effective recruitment of underserved populations who have traditionally been underrepresented in research studies.¹⁴

The COVID-19 pandemic has brought many changes to home palliative care. So far, available literature has provided key information on barriers and opportunities related to these changes.²⁵ Providers' experiences generally indicated favorable attitudes toward video visits and telehealth. However, this favorable attitude seems to be lower among patients, and sometimes they preferred phone calls over video conferencing, though research on patients has been limited to a few studies.¹⁴ More research is required to bring a conclusion on patients' experiences during the pandemic.

Medical Record-Based Studies on Home Palliative Care During the COVID-19 Pandemic

Limited numbers of medical record-based studies are available regarding home palliative care during the COVID-19 pandemic.^{19,27} The outcome of palliative care during the pandemic has yet to be identified. For example, home palliative care has been associated with the reduction in hospital readmission and overall health care costs, particularly for those in the last 2 months of life.⁸ However, to the best of our knowledge, the impact of home palliative care on hospital readmission and total health care costs during the COVID-19 has not been studied yet.

Chou et al. investigated the utilization of palliative care services before and during the COVID-19 pandemic (January 2019 to April 2020) in Taiwan. There was no significant difference in the utilization of home palliative care consultations before and during the pandemic.²⁷ However, the bed occupancy rate and length of stay in palliative care units in hospitals were significantly reduced. This reduction was much less observed in nonhospice units. The study suggests that hospice home care services were maintained, but the utilization of hospice inpatient care services reduced during the COVID-19 pandemic.²⁷

Page et al. investigated the home care strategies and experiences of a palliative care center in India during the COVID-19 lockdown. They used electronic data about interventions and experiences of the home palliative care team.¹⁹ During the lockdown, the palliative care center supported patients and their families through mainly phone calls (20% through video calls) and visited patients at home when it was necessary. They found that end-of-life care (33%), physical symptoms (24%), morphine need (19%), emotional care (15%), and procedures (9%) were the major indications of consultations. The authors also found that face-to-face visits at home were safe with complying with safety protocols.¹⁹

Medical record-based data have added to the home palliative care knowledge gained from survey-based studies during the COVID-19 pandemic. While physical pain could be an important cause of distress,¹⁹ patients were also in need of help with their routines, such as food and transportation in a

way that a social worker was capable of handling.¹⁸ There is a paucity of literature on the cost of care and survival for recipients of home palliative care during the pandemic, making it unrealistic to draw a precise conclusion on the impact of home palliative care usage at this time, and future research will clarify a comprehensive view of the outcome of patients who received home palliative care services during the pandemic.

Implications of Home Palliative Care During the COVID-19 Pandemic and Beyond

Prompt expansion of telehealth during the pandemic has shown the potential to transform and promote home palliative care. This transformation can persist if supportive policies continue and evolve in the long term. Current Literature regarding home palliative care during the COVID-19 pandemic has implications in 3 main areas: clinical, policy, and research.

Clinical Implications

Limiting the Spread of Infectious Disorders. The COVID-19 pandemic has exposed the high degree of susceptibility of patients with serious illnesses to infectious diseases⁶ and underscored the importance of taking care of these patients at home. Qualitative data have indicated the satisfaction of both providers and patients with home palliative care combined with telehealth during the pandemic.¹³ Therefore, home palliative care combined with telehealth should be considered as a tool to protect patients against infectious disorders beyond the pandemic.

Expanding Palliative Care Services. Infrastructure built during the pandemic can expand home palliative care beyond the pandemic. Shortage of palliative care professionals seem to be everywhere to some extent,²⁸ and saving travel time can gift home palliative care professionals more time to serve more patients.¹⁴ Home palliative care combined with telehealth can particularly expand palliative care services to rural areas where there has always been a significant shortage of palliative care professionals.^{9,29,30} Moreover, offering palliative care at home would particularly expand such care to minorities whose attitudes are usually against placing their loved ones in institutions.^{30,31}

Policy Implications. Current data have indicated that even during the COVID-19 pandemic, patients and providers were not interested in remote-only palliative care delivery, particularly during the first consultation.¹³ Patients sometimes preferred phone calls over video conferencing.¹⁴ Unfamiliarity with the technology and financial issues for purchasing the internet and related devices were barriers to the patients or their caregivers.²⁰ Therefore, policies for home palliative care should be directed toward a combination of face-to-face and remote consultations in addition to the training of clients and providing funds for accessibility of the internet and electronics.

Future of home palliative care will likely be dependent on the availability of professional workforces, and also of caregivers.^{9,32} The current system for home palliative care mostly relies on family caregivers who are usually unpaid.³³ Patients should not die alone at home and caregiving for end-stage patients cannot be delivered remotely. Caregivers can also be a valuable source for setting technology during virtual visits. Promotion of home palliative care cannot be possible without addressing the needs of family caregivers and key considerations for how to pay these valuable workforces.

The accelerated development of new internet-based technologies also raises major concerns regarding safety and privacy. Professionals and administrations should review best practices for privacy and security, employ all strategies to ensure privacy and security, and identify related policies to protect patients.³⁴

Research Implications. The clinical and cost outcomes of home palliative care during the COVID-19 pandemic need to be thoroughly investigated in future research to clarify its efficiency and effectiveness. To the best of our knowledge, there is no peer-reviewed article to clarify these critical measures for home palliative care during the COVID-19 pandemic, though it should be more cost-effective, at least from the theoretical point of view. More research is also required to shed light on the mortality of home palliative care patients during COVID-19.

Another interesting research area would be home palliative care utilization among racial/ethnic minority groups with different socioeconomic statuses. The attitude and values of racial/ethnic groups are usually against the placement of their loved ones in institutions.²⁶ There is a possibility that utilization of home palliative care has increased during the COVID-19 pandemic among minorities with a higher socioeconomic status. This might not be the case for minorities with a low socioeconomic status due to unfamiliarity with the technology and the cost of electronics. Future research will clarify these assumptions regarding race/ethnicity and home palliative care during the COVID-19 pandemic.

Limitations

Limitations of the current study might reflect the limitations of currently available data. So far, most articles on home palliative care during the COVID-19 pandemic have used surveys/interviews and focused on perception and experience of health providers, who usually had a positive attitude toward telehealth.^{1,8,9,14,18,20} However, measuring outcomes using medical records, such as mortality and cost of care have largely remained untouched. Most studies had a descriptive design.¹³ Some studies combined findings from different palliative care settings, including home,²⁴ but their results were different from studies being exclusively on home palliative care.^{25,26} Still, all these articles offered valuable knowledge on home palliative care during COVID-19 with lessons for the future.

Conclusions

The COVID-19 pandemic has been associated with the rapid shifting of the palliative care delivery mode toward home and telehealth. The current data, which is mainly based on the experience and perception of providers, has demonstrated promising results regarding home palliative care and telehealth during the COVID-19 pandemic while emphasizing a face-face consultation during the first visit. Regarding outcomes of home palliative care during the pandemic, such as survival and cost of care, however, data is absent. Further research is warranted to provide an answer to the remaining questions.

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