



IMPLEMENTATION OF *HOME TELEMEDICINE* IN ELDERLY WITH DEMENTIA DURING THE COVID-19 PANDEMIC: A *SYSTEMATIC REVIEW*

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ABSTRACT

Dementia is defined as a decrease in intellectual abilities which can cause changes in behavior, disruption in social life, and disruption in daily activities. Palliative care is a useful solution in the future to improve the quality of life for dementia sufferers during the COVID-19 pandemic. This systematic review aims to find out how the implementation of home telemedicine can become the main choice for elderly people with dementia during the COVID-19 pandemic. A database search was carried out by the PRISMA protocol focusing on Scopus, Proquest, Sage, ScienceDirect, and CINAHL identified based on MeSH-adjusted keywords, and a total of 2440 article journals were identified. Then deletion so that it remains 1086 article journals were reviewed. Then excluded (238) articles from journals based on 5 years, experimental test method with Randomized Controlled Trial design (RCT) and Experiments in language English, full text to be reviewed for feasibility so that 10 articles were obtained for review. From all articles, media innovation is very useful in implementing palliative care because of the various impacts of the global pandemic through the experiences of people with dementia and their care partners. The role of home-based palliative care using home telemedicine can potentially reduce the long-term impact of palliative care. The important role of palliative care integrated with long-distance services in informing health service priorities is to restore the quality of life and health of elderly people with dementia so that they are better prepared to face the future.

Keywords: COVID-19; dementia patients; home telemedicine; palliative care

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INTRODUCTION

Organization / *World Health Organization* for the first time reporting the SARS-CoV2 outbreak that caused COVID-19 infection in January 2020, the global spread of the pandemic has had a significant impact on research programs placed in centers academic whole Suite (Brody *et al.*, 2022). In 2020, over 83 million individuals were impacted by coronavirus disease-19 (COVID-19), resulting in approximately 2 million fatalities (WHO, 2021). We acknowledge the reality of COVID-19 as a commonplace condition. Epidemiological data indicate significantly higher mortality rates among older adults, with a higher prevalence of COVID-19 observed among parents compared to younger individuals (Veronese and Barbagallo, 2021). The mortality rate for individuals diagnosed with COVID-19 ranges from 1% to 3%, with those having multiple health conditions being at the highest risk of death. Estimates vary significantly, but COVID-19 has been responsible for up to 510,000 deaths in the UK and 2.2 million in the United States. Characteristics of clinical COVID-19 cases have underscored the importance of identifying ICU admission risks and end-of-life care needs.

However, there is a lack of data on the palliative care requirements for COVID-19 patients, including symptom burden and treatment responses, which is crucial for planning palliative and home care services (Lovell *et al.*, 2020). Canada's population is aging rapidly, placing an increasing burden on the health care system. In 2016, for the first time in Canadian history, seniors outnumbered children (≤ 14 years) (comprising 16.6% of the total population). As the baby boom generation continues to age, seniors are expected to make up approximately 23% of Canada's population by 2031 (Sekhon *et al.*, 2021). We can actually think of COVID-19 as a disease that is specific to the elderly. Epidemiological data show that the mortality rate among the elderly is extremely high, and the prevalence of COVID-19 among the elderly is higher than that among younger people (Onder, Rezza and Brusaferro, 2020)

An increased prevalence of disease chronic, death, access to service maintenance palliative conditions and upgraded awareness will become a benefit for patients, nurses, and systems maintenance health for maintenance palliative (Jeba, Taylor and O'Donnell, 2021). In November 2020, a 91-year-old woman affected by severe dementia was referred to our HaH because of functional deterioration over the previous 10 days (Marinello *et al.*, 2021). Maintenance palliative has a role key in the maintenance of the elderly affected by COVID-19. This is an approach to increasing the quality of life of communities and families that face problems with threatening diseases soul (Gilissen *et al.*, 2020). Lack of data about the need for maintenance palliative care for people with COVID-19, including burden symptoms and response to treatment to help inform planning service maintenance palliatives and services House sick (Lovell *et al.*, 2020). Giving help for *Activity Daily Living* could reduce burden and anxiety. However, help Adequate and not *daily living* activities there is behavior that tends to show standard and very basic care. A maintenance base like that is not possible enough to reflect mean maintenance quality palliative according to the community, giver care, and recipient care. On the other hand, are considered palliative too protective, sensitive, or not appropriate by the recipient maintenance tends to become boomerang, and prospective linked with more symptoms good to the giver maintenance nor receiver maintenance (Lau, Lou and Cheung, 2018).

As dementia prevalence increases, so does the dependence on family caregiving and loss of independence. The rising rates of dementia underscore a growing demand for support among older adults in Canadian society. The impact of the novel coronavirus (COVID-19) has further emphasized this need, placing substantial strain on the healthcare system (Sekhon *et al.*, 2021). According to the Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV), dementia is primarily diagnosed based on cognitive impairment, often followed by deficits in executive or social functioning. It is a common issue in general geriatrics among individuals aged 65 and older. The prevalence of dementia doubles approximately every five years. Dementia stands as a leading cause of ongoing disability in older adults (Chahyani and Hastuti, 2021). The estimated total sufferers of dementia aged more than 60 years in Indonesia, Thailand, and Sri Lanka in 2001 was 0.6 percent of the total population, number the estimated increase in 2020 to 1.3% and 2.7% in 2040 (Nurfianti and An, 2020). Based on the data above, it can be concluded that old age of more than 60 years, and experiencing/tending to have dementia still a large number of pain, especially during the COVID-19 pandemic. Maintenance palliative Becomes a useful solution in the future day for increasing the quality of life for sufferers of dementia During the COVID-19 pandemic. Destination from the review this is an existing recommendation maintenance palliative in patients with dementia During the COVID-19 pandemic.

The importance of the role of integrated palliative services with remote services in informing health care priorities to restore the quality of life and health of the elderly with dementia so that they are better prepared for the future. Telemedicine is a solution appropriate time for restrictions imposed by social distancing COVID-19 modalities conventional from provision service health. The population affected by geriatric dementia needs more access to service health, especially in the area countryside. Thus, the goal of the review system is to check the impact of telemedicine on outcomes of individual health carry on age with dementia living in the area countryside. The more Becomes depending on the electronic model communication remember to state moment this. This is also translated as Becomes Health, where telemedicine seems to become an aspect urgent from the giving model service health moment it's in the middle COVID-19 pandemic. The purpose of this systematic review is to find out how the implementation of home telemedicine can become the main choice for elderly people with dementia during the COVID-19 pandemic, s well as making it easier to enable efficient medical consultations via video or audio calls. Patients can consult without needing to physically come to a clinic or hospital.

METHOD

Search Strategy

The search strategy was carried out on 4 databases namely Scopus, Proquest, Sage, Cinahl, and Pubmed. Identified journal articles with term search or keywords that have been adapted to Medical *Subject Headings* (MeSH) including ("Telemedicine", "Home Telemedicine", "Dementia", "Dementia Patients", and "COVID-19") published in a period 5 years last (2018-2022) in language English, article *full text, open-access* with use *boolean operators (AND, OR)* in look for the article.

Table 1.

Search strategy for articles in databases

Database	Search Syntax	Article Found
Scopus	("Home Telemedicine" OR "Telemedicine, Home")	2.903
	("Elderly OR Dementia Patient")	229.591
	("Covid-19 " OR Pandemic Covid-19 " OR Covid-19 , Pandemic")	9.976
	("Home Telemedicine" OR "Telemedicine, Home" OR "Elderly" OR "Dementia Patients" OR "Covid-19" OR "Pandemic Covid-19" OR "Covid-19, Pandemic")	1.109
Proquest	("Home Telemedicine" OR "Telemedicine, Home")	173.505
	("Elderly OR Dementia Patient")	1.312.494
	("Covid-19 " OR Pandemic Covid-19 " OR Covid-19 , Pandemic")	11.038.123
	("Home Telemedicine" OR "Telemedicine, Home" OR "Elderly" OR "Dementia Patients" OR "Covid-19" OR "Pandemic Covid-19" OR "Covid-19, Pandemic")	11.234.179
CINAHL	("Home Telemedicine" OR "Telemedicine, Home")	11.608
	("Elderly OR Dementia Patient")	133.241
	("Covid-19 " OR Pandemic Covid-19 " OR Covid-19 , Pandemic")	103.848
	("Home Telemedicine" OR "Telemedicine, Home" OR "Elderly" OR "Dementia Patients" OR "Covid-19" OR "Pandemic Covid-19" OR "Covid-19, Pandemic")	109.906

Database	Search Syntax	Article Found
SAGE	Pandemic”)	
	(“Home Telemedicine” OR “Telemedicine, Home)	1224
	(“Elderly OR Dementia Patient”)	18.367
	(“Covid-19 “ OR Pandemic Covid-19 “ OR Covid-19 , Pandemic”)	16.388
Pubmed	(“Home Telemedicine” OR “Telemedicine, Home” OR “Elderly” OR “Dementia Patients” OR “Covid-19” OR “Pandemic Covid-19” OR “Covid-19, Pandemic”)	190
	(“Home Telemedicine” OR “Telemedicine, Home)	1475
	(“Elderly OR Dementia Patient”)	1224
	(“Covid-19 “ OR Pandemic Covid-19 “ OR Covid-19 , Pandemic”)	225.646
	(“Home Telemedicine” OR “Telemedicine, Home” OR “Elderly” OR “Dementia Patients” OR “Covid-19” OR “Pandemic Covid-19” OR “coronavirus” OR 2019-ncov” OR sars-cov-2” OR cov-19”)	108

Criteria Inclusion and Exclusion

Search article journal uses PICOT. framework with the inclusion criteria of 1. The population study is all elderly with ages more than 60 years 2. Nursing interventions for people with dementia 3. RCT and Experimental studies 4. articles in 5 years final from 2018-2022 and (4) articles written in language England. Besides criteria on researcher enters in category criteria exclusion.

Table 2.
Article search criteria

<i>Title</i>	Implementation of Home Telemedicine in Elderly Patients with Dementia during the COVID-19 Pandemic
<i>Population</i>	<i>Elderly</i>
<i>Intervention</i>	<i>Distance Counseling</i>
<i>Comparison</i>	Elderly Patients with Dementia who do not use Home Telemedicine
<i>Outcome</i>	Patient Satisfaction
<i>Time</i>	2018-2022
<i>Type of Question</i>	Implementation of Home Telemedicine in Elderly Patients with Dementia during the COVID-19 Pandemic?

Selection Studies

According to PRISMA guidelines, the study potential first time was taken from electronic databases. After deletion duplicate, title, and abstract studies potentials are then filtered for criteria eligibility. full text from every study chosen for fulfilling criteria inclusion and taken for checking more continued. Search text secondary conducted from the reference list studies for identifying notes additional. Relevant and fulfilling study results in all criteria inclusion entered into the review systematic. Search and filter process done by two reviewers independent/author.

Data Extraction

Form structure used to extract information from articles including journals. Start from the author, year, design, age respondent, big sample, intervention, *and outcome*, as well as a conclusion from an article journal used for evaluating the effect given intervention. All articles are displayed in Table 3, based on the criteria that have been obtained and selected.

RESULTS

Selection Studies

A total of 2440 article journals were identified. Then deletion of duplicate and automatic tools so that it remains 1086 article journals were reviewed. Then excluded (238) articles from journals based on 5 years last, experimental test method with *Randomized Controlled Trial design* (RCT) and Experiments in language English, *full text*, *and open access* so that obtained 848 articles journal and excluded 16 article journal so that took 832 articles journal study to be reviewed for feasibility so that 10 articles were obtained for review.

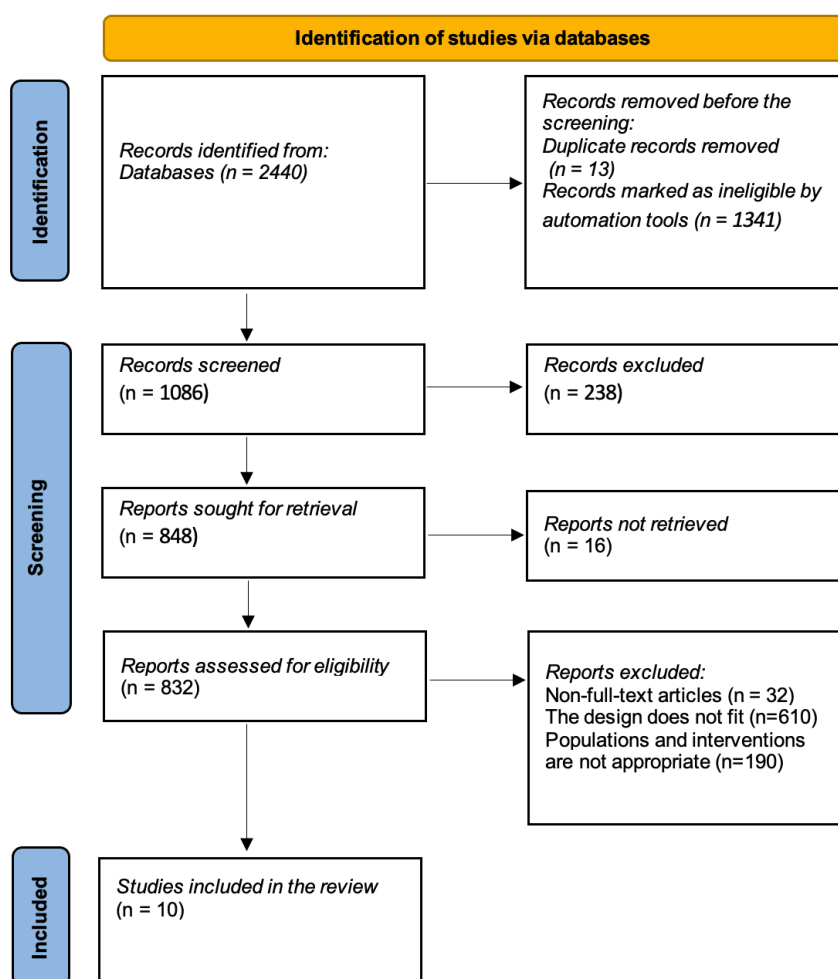


Figure 1. PRISMA 2020 flow chart

Studies Characteristics

The systematic review included a total of 22,860 respondents, with individual studies having between 49 and 8,400 participants. Participants were chosen based on age criteria established by the researchers, selected through a specific process, and consent was obtained from their caregivers.

Characteristics Intervention

Interventions Provided to the Elderly with Dementia. Based on the results of a review of 10 articles, there are interventions carried out by families who care for the elderly at home, in nursing homes, and in-hospital care.

Table 3.
Extraction results of selected rct articles

No.	Title Research and Author	Sample	Intervention	Conclusion
1.	<i>Transitioning to remote recruitment and intervention: A tale of two palliative care research studies enrolling underserved populations during COVID-19.</i> (Brody et al., 2022)	seniors totaling 109 people with dementia light. Age: 65 years.	On March 10, 2020 everyone activity recruitment and registration straight away. The visit act is carried on with the registered subject previously conducted through telephone, and if possible, data is collected via Zoom	Trial palliative based on the community in the future, in particular, based on home Becomes recruitment distance remote, registration, and data collection processes can increase efficiency and reduce cost.
2.	<i>Specific approaches to patients affected by dementia and covid-19 in nursing homes: the role of the geriatrician.</i> (Veronese and Barbagallo, 2021)	56 elderly. Age: 65 years.	Test-affected patients with dementia, a possible solution is to find tests less new and invasive for COVID-19 identification.	Use <i>telemedicine</i> and reorganization structure is very useful in the future.
3.	<i>Telemedicine and Telehealth in Nursing Homes</i> (Groom et al., 2021)	Participants included doctors, NH residents, patients subacute, and family. Age: 60 years.	The technology used and scheduling telehealth services. Four studies focus on teleconsultation drugs with doctors in geriatrics, and present telemedicine services delivered by experts nerves, and psychologists. In 2 studies, people life with dementia accepted every week or monthly counseling. Other programs scheduled a consult with doctor geriatrics individually as required. Others held two weekly based on tele case consultations where 3 to 4 cases were reviewed between NH pro doctors and specialists at the center's medical.	NH is filled with enhancement challenges as a consequence of the COVID-19 pandemic, which can assisted by telemedicine and telehealth. Study addition is required to explore the opinions of residents and families about telemedicine and the use of telehealth in nursing homes elderly, as well as cost monitoring distance far and change plot work going on with its use.
4.	<i>Telemedicine and the rural dementia population: A systematic review</i> (Sekhon et al., 2021)	There are 101 patients take care to stay with confirmed COVID-19 infection. Age: 60-65 years.	Studies use various test cognitive and report mixed results about the difference in performance of patients when rated live compared to telemedicine consultation stations.	Condition telemedicine testing and accessibility results in results that are not convincing, whether telemedicine can increase management of dementia in individuals' geriatrics
5.	<i>Conservative management of Covid-19 patients-emergency palliative care in action</i> (Fusi-Schmidhauser et al.,	25 seniors. Age: 66 years.	Using warning parameters early to evaluate patients with COVID-19. Saturation < 88% categorized in a category not stable. Patients with a state getting worse	COVID-19 patients need input maintenance palliative because the burden of major symptoms and needs will open communication. Saturation

No.	Title Research and Author	Sample	Intervention	Conclusion
	2020)		will categorized as as maintenance end-live.	< 88% categorized in a category not stable. Patients with a state getting worse will categorized as as maintenance end-live
6.	<i>Understanding the impact of the COVID-19 pandemic on well-being and virtual care for people living with dementia and care partners living in the community</i> (Roach <i>et al.</i> , 2021)	20 seniors who completed the interview Age: 65 years.	20 sample complete interviews, we contacted 45 people of whom 21 people agreed and completed the interview. Interview length ranged from 8 m:33 s to 34 m:38 s (mean length = 21 m:12 s), and all interviews were completed by telephone at the participant's request.	Studies give proof beginning the impact of COVID-19 on living people with dementia and partner maintenance. The interview identifies a number of consequences bad from health public steps applied to withhold the spread of SARS-CoV-2.
7.	<i>Improving the approach to future care planning in care homes.</i> (Kinley, Denton and Levy, 2018)	37 seniors suffer dementia. Age: 67 years.	During the 10 months of the audit, the PEACE/ Personalized Advisory CarE. document solved for 14 occupants nursing home. During the audit, staff House Decrepit submits related audit data with deceased occupants every month.	Planning future care ACP/ advanced care planning is needed in nursing decrepit to investigate results and effectiveness cost.
8.	<i>An acute model of care to guide eating & drinking decisions in the frail elderly with dementia and dysphagia.</i> (Hansjee, 2018)	21 patients with dementia. Age: 60 years	The audit is done by retrospective During a month every year. Patients included in the audit have a score of weakness clinical above 6 which shows a level of dependency currently until heavy.	Strong communication has protocols in place to reduce take care prolonged hospitalization in the frail elderly, leading to quality more life for individuals this, can produce savings cost for service health.
9.	The Humanoid Robot Sil-Bot in a Cognitive Training Program for Community-Dwelling Elderly People with Mild Cognitive Impairment during the COVID-19 Pandemic: A Randomized Controlled Trial (Park, Jung and Lee, 2021)	160 elderly with impaired cognitive function. Age: 60 years.	Multi-domain cognitive training, especially robot-assisted training, carried out 12 times, twice a week for 6 weeks	A 6-week robot-assisted multi-domain cognitive training program can improve global cognitive function efficiency and depression during cognitive tasks in the elderly with MCI, which is associated with improved memory and executive function.
10.	The consequences of COVID-19 lockdown for formal and informal resource utilization among home-dwelling people with dementia: results from the prospective PAN.DEM study (Vislapuu <i>et al.</i> , 2021)	105 elderly with dementia. Age: >65 years of age.	<u>LIVE@Home.Path</u> utilizes home care providers for the elderly with interventions consisting of Learning, Innovation, Volunteering, and Empowerment	Compared to care as usual, we expect the LIVE@Home.-Path trial to innovate on clinical pathways in dementia care, facilitating cost-effective, viable and independent home living through Learning, Innovation, Volunteering and Empowerment.

Bias Risk

From the result analysis, the risk of bias using JBI is obtained for 10 articles percentage of 80%.

Table 4.
 JBI critical appraisal checklist results

Penulis dan Tahun	Critical Appraisal Checklist													Hasil	%
	1	2	3	4	5	6	7	8	9	10	11	12	13		
Brody et al. (2021)	√	√	√	√	√	√	√	√	√	√	√	√	√	13	100
Veronese et al. (2021)	√	√	√	√	√	√	√	√	√	√	√	√	√	13	100
Witkoski et al. (2021)	√	√	√	√	√	√	√	√	√	√	√	√	√	13	100
Sekhoh et al. (2021)	√	√	√	√	√	√	√	√	√	√	√	√	√	13	100
Tanja et al. (2020)	√	√	√	√	√	√	√	√	√	√	√	√	√	13	100
Roach et al. (2020)	√	√	√	√	√	√	√	√	√	√	√	√	√	13	100
Kinley et al. (2018)	√	√	√	√	√	√	√	√	√	√	√	√	√	13	100
Hansjee et al (2018)	√	√	√	√	√	√	√	√	√	√	√	√	√	13	100
Eun-A Park et al (2020)	√	√	√	√	√	√	√	-	√	√	√	√	√	12	92
Angeles et al (2021)	√	√	√	√	√	√	√	-	√	√	√	√	√	12	92

Application Home Telemedicine for the Elderly With Dementia During the COVID-19 Pandemic

The use of *telemedicine* in the care of the elderly can help families more practically in caring for the elderly with dementia, reduce costs, be able to increase efficiency by using applications of practical health data public for support development service maintenance responsive palliative by local. *advance care planning* It is also necessary to reduce activity costs, especially elderly care in nursing homes. *One of the studies related to the use of the LIVE@Home.Path* trial is one of the innovations in dementia care, which can facilitate cost-effective, feasible, and independent home care through learning, innovation, and volunteerism carried out in family members who care for or can be carried out by social workers (Vislapuu *et al.*, 2021). While palliative care for elderly dementia in hospitals focuses more on symptom management, education, support staff, referrals to special hospitals or general hospitals, and family support, greater attention is needed on guidelines that need to be drawn up more practically in the future. come. Caregivers need further understanding of the prevalence and symptom management to provide palliative care to those who die in the ICU and the community, especially during the COVID-19 pandemic. Palliative care in COVID-19 treatment is very necessary to be implemented in hospital care because of the large symptom burden experienced by clients and the need for open communication with clients and families. In one of the experimental studies using the RCT method, it was explained that a robot-assisted multi-domain cognitive training program for 6 weeks for the elderly with mild dementia could increase the efficiency of global cognitive function thereby reducing the progressive level of dementia symptoms that appeared to increase the client's independence in carrying out activities daily (Park, Jung and Lee, 2021, Veronese and Barbagallo, 2021).

Table 5.
Specific approach to demented patients infected with COVID-19

Specific approach	Pro	Cons
Psychological approach	Important for patients with dementia and Behavioral and Psychological Symptoms of Dementia	Not available in all nursing homes
Dedicated walking space for wandering patients	Best non-pharmacological solution	Difficult to realize during the COVID-19 outbreak in terms of personnel
Video calls	Appreciated by relatives and patients	Not applicable for patients with COVID-19
Intensive care approach	Best solution in severe COVID-19 cases	Ethical problems for older patients with severe dementia; poor prognosis

DISCUSSION

Dementia is a condition characterized by a gradual decline in memory, thinking, behavior, and the capacity to carry out everyday tasks, exceeding what is typical in normal aging. The frequency and occurrence of dementia increase with age and are linked to higher rates of disability, reduced quality of life, institutionalization, and mortality (Emmerton and Abdelhafiz, 2021). As dementia becomes more prevalent, there is a growing need to support aging within the community. This necessity has been particularly highlighted by the novel coronavirus (COVID-19), which is heavily straining healthcare systems. Consequently, the care of elderly patients sometimes falls short as efforts are made to alleviate pressure on healthcare systems by minimizing hospital stays and reducing reliance on expensive facilities like Emergency Rooms (Sekhon *et al.*, 2021). Similarly, the pandemic has negatively affected the availability of services and support for family carers and individuals with dementia. Carers are hesitant to seek help due to concerns about their relatives' safety, poor communication with professionals, and a desire not to burden the NHS. As a result, they are turning to trusted alternative services, such as well-known national charities, for support (Aker *et al.*, 2021). The COVID-19 pandemic has put a strain on healthcare systems worldwide by causing both potential and real shortages of resources. To address the possibility of having to ration essential care resources, it is crucial to have clear advance directives regarding life-sustaining treatment (de Lasa *et al.*, 2022). Currently, there is limited information on how COVID-19 has affected dementia care, despite the known increased risk of severe infection among older adults with medical comorbidities. In a letter published in *The Lancet*, doctors from Wuhan province highlighted several obstacles to effective dementia care, such as challenges in maintaining social distancing and proper hygiene, disruptions in services, and difficulties in accessing telemedicine (Roach *et al.*, 2021).

Patients and caregivers have reported various ways in which COVID-19 disrupted their access to healthcare, including the loss and delay of medical services and the avoidance of residential facilities due to fears of virus transmission. The pandemic has increased the burdens and exacerbated the challenges faced by patients, caregivers, and both palliative and non-palliative care providers. Palliative care providers should ensure the availability and safety of in-person visits for patients who require them. As the pandemic continues with anticipated long-term consequences, neuro palliative services should focus on optimizing telemedicine and reducing healthcare disruptions. Telehealth has enhanced healthcare delivery for many patients and holds significant potential for improving the lives of patients and caregivers (Macchi *et al.*,

2021). COVID-19 pandemic, one of society's most pressing issues became the provision of adequate care and treatment for home-dwelling people with dementia (PwD). Compared to traditional care, the LIVE@Home.-Path trial is an innovation in the clinical pathway in dementia care, which focuses on reducing the cost of care using home care facilities. Providing direct learning, innovation, volunteerism, and independence to caregivers. Possible modifications and procedures to be performed in the future will be emailed to the coordinator every 2-3 months. The latest version of the protocol adapts to the current pandemic conditions, namely training may be carried out using video conference or telephone with caregivers (Vislapuu *et al.*, 2021).

During the COVID-19 pandemic, it is crucial to provide high-quality palliative care to individuals with dementia living in long-term care facilities and their families (Bolt *et al.*, 2021). During the COVID-19 pandemic, relatives of dementia patients face heightened stress, anxiety, social isolation, and reduced attentiveness. Interaction with these patients is vital during advanced stages of dementia, affecting both the patient's end-of-life journey and the caregiver's mourning process. Providing opportunities for meaningful connections with dementia patients during this crisis is crucial for alleviating caregivers' burdens, stress, disagreements, and feelings of bereavement (Kaasalainen *et al.*, 2021). The pandemic has influenced the choices facing family caregivers of individuals with dementia, affecting decisions about end-of-life care and the location of death. These decisions involve considerations such as where the person should receive treatment, including whether to maintain home care services. Caregivers may find themselves needing to make rapid decisions with minimal assistance and advice from healthcare providers (Aker *et al.*, 2021). We observed various effects on the health of individuals with dementia and their family members or caregivers. While most participants recognized the importance of social distancing, they struggled with its physical and emotional challenges. Activities that hold meaning and social interaction are crucial for the well-being and functioning of families caring for individuals with dementia (Roach *et al.*, 2021)

CONCLUSION

During 4 weeks of social distancing due to the COVID-19 pandemic, supplemental telehealth provided via video conferencing applications delivered via mobile devices was associated with positive community impacts (Lai *et al.*, 2020). The digital divide, especially the use of *telemedicine*, almost needs to be studied further, especially palliative services with remote intervention. The age of the caring family member was also found to influence the success of face-to-face sessions using *video calls* or *zoom*, and factor this must always be considered when arranging promised *telemedicine*. Seeing the full range of effects of the global pandemic through the experiences of people living with dementia and their care partners, palliative services must play a role in informing healthcare priorities to restore the quality of life and health of older people with dementia so that they are better prepared for the future.

REFERENCES

- Aker, N. *et al.* (2021) 'Challenges faced during the COVID-19 pandemic by family carers of people living with dementia towards the end of life', *BMC Health Services Research*, 21(1), pp. 1–10. Available at: <https://doi.org/10.1186/s12913-021-07019-6>.
- Arighi, A. *et al.* (2021) 'Facing the digital divide into a dementia clinic during COVID-19 pandemic: caregiver age matters', *Neurological Sciences*, 42(4), pp. 1247–1251. Available at: <https://doi.org/10.1007/s10072-020-05009-w>.

- Bolt, S.R. *et al.* (2021) 'Practical nursing recommendations for palliative care for people with dementia living in long-term care facilities during the COVID-19 pandemic: A rapid scoping review', *International Journal of Nursing Studies*, 113. Available at: <https://doi.org/10.1016/j.ijnurstu.2020.103781>.
- Brody, A.A. *et al.* (2022) 'Transitioning to Remote Recruitment and Intervention: A Tale of Two Palliative Care Research Studies Enrolling Underserved Populations During COVID-19', *Journal of Pain and Symptom Management*, 63(1), pp. 151–159. Available at: <https://doi.org/10.1016/j.jpainsymman.2021.06.017>.
- Chahyani, W.I. and Hastuti, M.S. (2021) 'Mixed Dementia: Tinjauan Diagnosis dan Tatalaksana', *Muhammadiyah Journal of Geriatric*, 1(2), p. 46. Available at: <https://doi.org/10.24853/mujg.1.2.46-51>.
- Emmertson, D. and Abdelhafiz, A.H. (2021) 'Care for Older People with Dementia During COVID-19 Pandemic', *SN Comprehensive Clinical Medicine*, 3(2), pp. 437–443. Available at: <https://doi.org/10.1007/s42399-020-00715-0>.
- Fusi-Schmidhauser, T. *et al.* (2020) 'Conservative Management of COVID-19 Patients—Emergency Palliative Care in Action', *Journal of Pain and Symptom Management*, 60(1), pp. e27–e30. Available at: <https://doi.org/10.1016/j.jpainsymman.2020.03.030>.
- Gilissen, J. *et al.* (2020) 'International COVID-19 Palliative Care Guidance for Nursing Homes Leaves Key Themes Unaddressed', *Journal of Pain and Symptom Management*, 60(2), pp. e56–e69. Available at: <https://doi.org/10.1016/j.jpainsymman.2020.04.151>.
- Groom, L.L. *et al.* (2021) 'Telemedicine and Telehealth in Nursing Homes: An Integrative Review', *Journal of the American Medical Directors Association*, 22(9), pp. 1784–1801.e7. Available at: <https://doi.org/10.1016/j.jamda.2021.02.037>.
- Hansjee, D. (2018) 'An acute model of care to guide eating & drinking decisions in the frail elderly with dementia and dysphagia', *Geriatrics (Switzerland)*, 3(4). Available at: <https://doi.org/10.3390/geriatrics3040065>.
- Jeba, J., Taylor, C. and O'Donnell, V. (2021) 'Projecting palliative and end-of-life care needs in Central Lancashire up to 2040: an integrated palliative care and public health approach', *Public Health*, 195, pp. 145–151. Available at: <https://doi.org/10.1016/j.puhe.2021.04.018>.
- Kaasalainen, S. *et al.* (2021) 'Improving end-of-life care for people with dementia in LTC homes during the COVID-19 pandemic and beyond', *Canadian Geriatrics Journal*, 24(3), pp. 164–169. Available at: <https://doi.org/10.5770/CGJ.24.493>.
- Kinley, J., Denton, L. and Levy, J. (2018) 'Improving the approach to future care planning in care homes', *International Journal of Palliative Nursing*, 24(12), pp. 576–583. Available at: <https://doi.org/10.12968/ijpn.2018.24.12.576>.
- Lai, F.H. yin *et al.* (2020) 'The Protective Impact of Telemedicine on Persons With Dementia and Their Caregivers During the COVID-19 Pandemic', *American Journal of Geriatric Psychiatry*, 28(11), pp. 1175–1184. Available at: <https://doi.org/10.1016/j.jagp.2020.07.019>.

- de Lasa, C. *et al.* (2022) 'Invited letter: Integrated palliative care in a geriatric mental health setting during the COVID-19 pandemic', *International Journal of Geriatric Psychiatry*, 37(1), pp. 1–3. Available at: <https://doi.org/10.1002/gps.5654>.
- Lau, B.H.P., Lou, V.W. and Cheung, K.S.L. (2018) 'Exemplary care among chinese dementia familial caregivers', *Healthcare (Switzerland)*, 6(4), pp. 1–14. Available at: <https://doi.org/10.3390/healthcare6040141>.
- Lovell, N. *et al.* (2020) 'Characteristics, Symptom Management, and Outcomes of 101 Patients With COVID-19 Referred for Hospital Palliative Care', *Journal of Pain and Symptom Management*, 60(1), pp. e77–e81. Available at: <https://doi.org/10.1016/j.jpainsymman.2020.04.015>.
- Macchi, Z.A. *et al.* (2021) 'Lessons from the COVID-19 pandemic for improving outpatient neuropalliative care: A qualitative study of patient and caregiver perspectives', *Palliative Medicine*, 35(7), pp. 1258–1266. Available at: <https://doi.org/10.1177/02692163211017383>.
- Marinello, R. *et al.* (2021) 'Telemedicine-assisted care of an older patient with COVID-19 and dementia: bridging the gap between hospital and home', *Aging Clinical and Experimental Research*, 33(6), pp. 1753–1756. Available at: <https://doi.org/10.1007/s40520-021-01875-2>.
- Nurfianti, A. and An, A. (2020) 'The Effectiveness of The Mini-Cog and MMSE As Vital Instrument Identifying Risk of Dementia As A Nursing Process Reinforcement', *NurseLine Journal*, 4(2), p. 114. Available at: <https://doi.org/10.19184/nlj.v4i2.13708>.
- Onder, G., Rezza, G. and Brusaferro, S. (2020) 'Case-Fatality Rate and Characteristics of Patients Dying in Relation to COVID-19 in Italy', *JAMA - Journal of the American Medical Association*, 323(18), pp. 1775–1776. Available at: <https://doi.org/10.1001/jama.2020.4683>.
- Park, E.A., Jung, A.R. and Lee, K.A. (2021) 'The humanoid robot sil-bot in a cognitive training program for community-dwelling elderly people with mild cognitive impairment during the COVID-19 pandemic: A randomized controlled trial', *International Journal of Environmental Research and Public Health*, 18(15). Available at: <https://doi.org/10.3390/ijerph18158198>.
- Roach, P. *et al.* (2021) 'Understanding the impact of the COVID-19 pandemic on well-being and virtual care for people living with dementia and care partners living in the community', *Dementia*, 20(6), pp. 2007–2023. Available at: <https://doi.org/10.1177/1471301220977639>.
- Sekhon, H. *et al.* (2021) 'Telemedicine and the rural dementia population: A systematic review', *Maturitas*, 143(September 2020), pp. 105–114. Available at: <https://doi.org/10.1016/j.maturitas.2020.09.001>.
- Veronese, N. and Barbagallo, M. (2021) 'Specific approaches to patients affected by dementia and covid-19 in nursing homes: the role of the geriatrician', *Ageing Research Reviews*, 69(April), p. 101373. Available at: <https://doi.org/10.1016/j.arr.2021.101373>.
- Vislapuu, M. *et al.* (2021) 'The consequences of COVID-19 lockdown for formal and informal resource utilization among home-dwelling people with dementia: results from

the prospective PAN.DEM study', *BMC Health Services Research*, 21(1), pp. 1–12.
Available at: <https://doi.org/10.1186/s12913-021-07041-8>.

WHO (2021) 'Clinical management Clinical management Living guidance COVID-19', *Who*, (January), pp. 16–44.