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Editorial

What COVID-19 Innovations Can Teach Us About Improving Quality of Life in Long-Term Care



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The impact of COVID-19 on long-term care (LTC) staff and residents has been widely documented. In many countries with available data, the percentage of deaths among nursing home residents ranged from 34% to 80% of COVID-19–related mortality.^{1,2} Globally, staff, administrators, and community members have devised innovative strategies to maintain quality of life for residents while reducing spread of COVID-19. Although developed as urgent responses to a temporary situation, some innovations could address longstanding quality of life challenges and should, we suggest, be considered for permanent adoption. Our purpose is to highlight some of those innovations.

Our team conducted a literature review of topics related to innovation and nursing home quality of life in the context of COVID-19. The Google Scholar search engine was used for much of the search. Recognizing that much of the literature would not be published in academic journals, we also used other search engines to search for relevant sources from newspaper articles and government reports. As a global team, in addition to the English-language sources, we searched for sources in several other languages, including Chinese, Japanese, and Spanish. Through this search, we identified 19 interventions related to improving resident quality of life; interventions were grouped into 4 categories based on their stated or implied purpose, namely, to increase resident social connections, improve physical fitness, support staff/resident relationships, and promote staff/family communication (see [Table 1](#)).

Increase Resident Social Connections

For many residents, connections with family are central to maintaining quality of life.³ Unfortunately, protecting vulnerable residents from exposure to COVID-19 has primarily been achieved through isolation from outside contacts, effectively cutting off interactions between residents and their families.^{4,5} Many LTC organizations have responded to enforced isolation by finding new ways to maintain resident and family connections, including facilitating video conferencing between residents and their families (Zoom, FaceTime, WhatsApp, WeChat) on phones and tablets. Technologies such as “granny cams,” robots, and voice recordings have been used in some settings.^{6,7} Contrary to widespread belief, many residents have successfully used these devices.⁸ There have been challenges, including limited availability of devices or broadband; reduced manual dexterity; cognitive, visual, or hearing impairments; and resident technological literacy.^{4,9} Most, if not all, of the innovations reported require staff assistance, sometimes adding significantly to workload.

Social isolation has increased significantly as contact with the outside world is cut off, distance between residents is enforced, and staff-resident contacts are minimized. This means many residents spend long hours alone. In an effort to increase social connection, virtual pen pal and chat programs have been initiated, sometimes by the staff and sometimes by outside organizations such as school and church groups.¹⁰ Elementary school and college students have participated in “new friends” writing campaigns, sending postcards, stories, poetry, uplifting messages, and photographs, thus reminding residents they are part of a larger community.^{10–13}

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Table 1
Types and Benefits of COVID-19–Related Quality of Life Innovations, Contributions from Canada, Japan, Switzerland, United Kingdom, USA, China, Jamaica, Ethiopia

Innovation	Benefits of Innovation			Required Digital Technology	
	Increase Resident Social Connections	Improve Physical Fitness	Promote Communication Between Families and Care Staff/Administrators	Support Relationships Between Residents and Staff	
Quality of Life Innovations (N = 18)	X				
Tablet video chat with family	X				X
2-way “granny cams” with family	X				X
Social pets and robots	X				X
Pen pals	X				
Residents’ pets visiting in the parking lot	X				
Outdoor concerts, serenades	X				
Family members hired to help with ADL	X				
Outdoor fitness	X	X			
Virtual strength and fitness classes with family member (virtually)	X	X			X
Virtual strength and fitness classes with familiar staff member	X	X		X	X
Consistent staff assignment	X			X	
Room and board for direct care workers				X	
Staff paired with resident to identify preferred, individual activities	X			X	
Virtual group meetings between families and direct care workers				X	
Weekly letters from administrators to residents’ families				X	
Family letters of gratitude to staff and administrators displayed in lobby				X	
Staff appreciation parades				X	
Staff member selected as family liaison for each resident				X	
Selected staff member to identify family concerns and ensure regular communications				X	
Total innovations for purpose	12	3	6	4	7

ADL, activities of daily living.

A recent study revealed significant reductions in social activities as 64% of nursing homes report residents being confined to their rooms and a drastic reduction in the number of activities.¹⁴ High-tech solutions like social robots in the form of cats, dogs, or seals and virtual vacations through immersion technology have been used to engage residents through simulated social contact.^{15,16}

Many homes have increased outdoor activities like “inspiration walks,” featuring quotes on benches and music playing in the background. Several have invited roving musicians to serenade residents or held outdoor concerts. Increasing outdoor activities addresses a common but often unfulfilled desire to spend time outside while complying with infection control precautions.^{17–19}

Improve Physical Fitness

Much less frequently reported were interventions initiated for the purpose of keeping residents physically fit or maintaining prepan-demic levels of physical function. Examples of the few reported activities include broadcasting virtual fitness classes on internal stations, some asynchronous so residents could engage on their own time and at their own pace. Other programs link residents virtually to family members participating in the same exercise program, enhancing both fitness and social connection.²⁰ Notably, these programs required relatively sophisticated technology.

Support Staff-Resident Relationships

Relationships between staff and residents are crucial for providing high-quality care and of great importance for residents’ emotional lives.²¹ Recognizing the significance of these relationships, assigning staff consistently to the same resident has been globally endorsed. Unfortunately, research has documented pervasive failure to achieve consistent assignment due largely to longstanding problems with staff recruitment and retention.^{22,23}

Fear of COVID-19 spread inside LTC homes has inspired innovations to limit the number of staff interacting with each resident. Consequently, many homes previously “unable” to achieve consistent assignment have found ways to do so. Organizations have taken seriously what was already known to improve staff retention, namely, improved benefits and communication with administrators.¹⁷ Several Chinese care facilities now add room and board to wages for direct caregivers, significantly increasing recruitment and retention of staff.^{24,25}

Promote Staff-Family Communication

Communication between residents’ families and the facility staff and administrators are often characterized by frustration and conflict.²¹ Families report having difficulty both getting the information they desire and successfully passing on information to the staff. One novel response to families feeling desperate to learn what was occurring “inside” was the establishment of daily, virtual briefings, bringing together heads of departments (social work, medicine, nursing, dietary, rehab) and families to exchange information. This forum minimized chances for conflicting or inconsistent information, led to collaborative problem solving, and provided families quick, ongoing access to information along with an opportunity to ask questions and to hear the experience of other families. Although there was no formal evaluation of the program, weekly return of more than 100 family members at one facility suggests a positive reception.²⁶

A strategy not requiring digital technology reported by one facility was assigning staff members as formal liaison for each family. This provided families with an easy mechanism for gathering information, ensuring that messages were communicated to staff, reduced

conflicting and contradictory information, and facilitated the development of trusting relationships between staff and families.

Summary

What can we learn from this? The creativity demonstrated by LTC staff across the globe suggests great potential for improving resident quality of life on a more permanent basis. Consider the possibilities. Expanded use of technology could widen a resident's social circle, include geographically distant relatives who are unable to visit, and increase the frequency and spontaneity of contacts, particularly resident initiated. Residents could “attend” important family events, such as weddings, that might otherwise be impossible. Where technology is less accessible, outdoor spaces for visiting, reconnecting with cherished pets, or musical serenades have inspired and cheered residents.

Some innovations were developed for the purpose of improving communication in even low-resource settings, with minimal expense and without the need for technology (one-third of the innovations reported require digital technology). Consider the impact of routine, predictable communication between staff assigned as liaison and family members in addressing the family's frustration and any resulting conflict—a simple, but not widely used, strategy.

We believe that pandemic-inspired innovations should be tried, tested, and modified as necessary. Several recent literature reviews on relationships between social connection and a range of mental health outcomes for LTC residents confirm the significance of social connection for resident well-being with implications that clearly extend beyond the pandemic.^{27–29}

Many innovations included in our table were created in response to COVID-19 and require future testing to provide evidence concerning their impact on resident outcomes. A few have been tested. Others have been implemented sporadically, generally viewed as “something extra,” rather than something to be expected. For example, one study found that synchronous communication between family and residents in locked-down facilities was more strongly associated with positive emotions than was asynchronous communication.^{27–29}

Quality of life innovations were observed from across a range of national and organizational contexts, including widely different national and local economies, LTC financing and regulatory systems, workforce capacities, and digital infrastructure. Whereas many of these innovations could be implemented by some LTC providers leveraging their existing human or technological resources, many others would require the purchase of new equipment or the hiring of new staff.

An important consequence of looking across countries is identifying strategies that might be adapted for use in other countries or cultures. The housing innovation seen in Chinese nursing homes, providing accommodation for direct care workers who have migrated to urban areas, might not immediately obvious relevance for other countries. However, finding affordable housing is a common challenge for direct care everywhere. Low income workers employed in high income communities are particularly challenged. Creative approaches to housing support, in these instances, could significantly improve recruitment and retention.

We have seen strong, widespread commitment and corresponding innovations to increasing social connection for residents during the pandemic, but fewer innovations aimed at keeping families informed, and remarkably few reported innovations implemented for the purpose of maintaining resident physical fitness and function. The impact of this can be seen in the widely reported suffering of family members³⁰ and the recent warnings about increased pressure injury risk.³¹ Whether the failure to address these latter issues in a more robust fashion reflects their perceived level of importance or the challenges faced in addressing them is unclear. In either case, they would benefit

from more creative attention, both during and beyond the pandemic. Whether this reflects a continuation of pre-pandemic perceptions about what is most important, a consequence of crisis management, or both, is unknown. But this offers us an opportunity to reflect on and explore the consequences for both residents and their families.

The commitment and creativity of staff around the world responding to similar challenges have reminded us that we have much to learn from each other and should be cautious about dismissing innovations that might seem relevant only for “other places or populations.” We hope these innovations, carried out under the most difficult circumstances, will inspire us to maintain what we have learned that can add to resident quality of life.

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