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INTRODUCTION

Approximately 74% of the deaths in the United States from severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that causes COVID-19 have occurred in adults age 65 years and older due to intrinsic vulnerabilities including comorbidity and frailty and residence in communal living spaces. Intrinsic vulnerabilities include comorbidity and frailty; residence in communal living spaces considered “hot spots” have contributed to higher risk. US nursing homes (NHs) and other long-term care (LTC) communities such as assisted living and adult day care services have been disproportionately affected by COVID-19. Nurses and health care workers provided care and services despite health concerns for themselves and family members. Nurses on the frontline were called to act with extraordinary tenacity, skill, flexibility, and creativity. The purpose of this article is to provide an overview of the challenges posed by the COVID-19 pandemic in LTC settings and the strategies prioritized and implemented with interdisciplinary colleagues in NHs, assisted living, and adult day services.
The most severely affected by COVID-19 were residents in the approximately 15,400 NHs, also referred to as skilled nursing facilities. Individual states have reported that up to 50% of cases and deaths attributed to the virus have occurred in these facilities. These care communities are certified by Medicare and/or Medicaid and include almost 1.3 million residents in the United States. Most NHs provide both LTC for residents with high care dependency and complex health care needs, as well as short-term, postacute care for patients admitted from the hospital who require highly skilled nursing care and/or rehabilitation. Short-term posthospital care is largely reimbursed by Medicaid, whereas most LTC is reimbursed by Medicaid. NHs that are predominantly dependent on Medicaid have less resources and lower staffing levels, are located in the poorest neighborhoods, and have the most quality problems.

Research on the facility characteristics associated with higher COVID-19 cases are conflicting. Some research indicated that NHs with low RN and total staffing levels have seemed to leave residents vulnerable to COVID-19 infections. Lower nursing home quality ratings (overall quality rating of 1 to 5 stars based on performance on 3 domains, each rated on 1 to 5 stars: health inspections, nurse staffing, and resident quality measures) were also found to be associated with higher COVID-19 incidence, mortality, and persistence. In contrast, it was the location of a nursing home, asymptomatic spread, and availability of testing—not quality ratings, infection citations or staffing—that were found to be determining factors in COVID-19 outbreaks, according to independent analyses by leading academic and health care experts, as well as government researchers. Larger facility size, urban location, and a greater percentage of African American residents were also associated with higher rates of infection. A study of 12,576 US NHs, conducted by Li and colleagues found that NHs with higher numbers of racial and ethnic minorities reported greater incidences of confirmed COVID-19 cases and deaths. In addition, in a cohort study of US nursing home residents with COVID-19, increased age, male sex, and impaired cognitive and physical function were independently associated with mortality.

Nurse Leaders Influencing Policy

NHs experienced a steep learning curve during the COVID-19 pandemic. NHs were required to quickly mobilize to implement the use of personal protective equipment (PPE), testing, and restrictive visitation policies. The fast spread of COVID-19 challenged federal and state agencies to provide timely guidance and NHs to implement those changes and still meet the daily health care needs of their residents. Nurse leaders assumed a critical role at the national and facility level to provide information, develop and help implement policy, and educate staff. For example, Deb Bakerjian developed and continues to update the Web site, “Coronavirus Disease 2019 (COVID-19) and Safety of Older Adults Residing in Nursing Homes” on the Agency for Healthcare Research and Quality (AHRQ) Patient Safety network. The primer is a compilation of information that has affected the safety of older adults and has been published on federal Web sites, in professional and academic literature and in the press.

A critical nursing role that has been highlighted by the pandemic is the infection preventionist (IP). The Centers for Medicare and Medicaid Services (CMS) in October 2016 expanded NH infection prevention and control (IPC) requirements to include
an antibiotic stewardship program and a designated individual to serve as an IP to oversee the program, this was based on research demonstrating that NHs with IPs who had specialized training were 5 to 13 times more likely to have a stronger IPC program. Before pandemic, IPs typically had multiple roles and thus are not able to dedicate their full time to IPC. The pandemic illuminated the need for a full-time essential IP to coordinate interdisciplinary activity including tracking cases of infection, educating staff, overseeing testing, and monitoring facility IPC practices.

The California state nursing workforce center (HealthImpact) partnered with nurse leaders within the state to address macrolevel nursing workforce issues during the pandemic. Academic and clinical practice nurse leaders created guidance documents for schools of nursing and clinical agencies to support and encourage safe academic-practice partnerships during the pandemic. The coalition worked with the California Board of Registered Nursing to also create official guidance documents to explain the various roles nursing students can assume to contribute to the workforce during the pandemic. They developed free high-quality simulations and supported a bill that codified the governor’s waiver for increased use of simulation in disaster situations. The coalition also created a toolkit to help introduce or refresh essential knowledge for retired nurse returning to the workforce and nursing students and worked with other nurse leader organizations to create resources, webinars, and podcasts to support the well-being and health of nurses. Finally, the coalition created a volunteer registration and matching system for interprofessional health care licensees and students to staff vaccination events throughout California especially in communities of color and hard-to-reach communities.

The CMS recognized the urgency of the COVID-19 crisis and convened the Coronavirus Commission for Safety and Quality in NHs in April, 2020. The 25-member commission was composed of academicians, clinicians, NH administrators, family members, residents, industry professionals, and scientific experts. The members were charged with making recommendations to improve infection prevention and control, safety procedures, and the quality of life of residents in NHs. The final report of the Commission contained 27 recommendations and was released in September 2020. A group of geriatric nurse experts responded to this report and while confirming the committee’s observations, posited that there were other policy weaknesses that have been long-standing problems and exacerbated the COVID-19 crisis. The experts identified weaknesses including chronic overall understaffing and insufficient numbers of professional nurses (that is, registered nurses [RNs]), insufficient geriatric expertise for managing complex care problems, and a culture focused on regulatory compliance, to the exclusion of quality improvement. Consequently, the nurse experts made the following recommendations: (1) ensuring RN coverage on a daily, around the clock basis and providing adequate compensation to provide total staffing levels that are commensurate with the needs of the residents; (2) ensuring RNs have both clinical and leadership competencies in geriatric nursing, including quality improvement and supervisory skills; (3) increasing efforts to recruit and retain the NH workforce, particularly RNs; and (4) supporting care delivery models, including the professional practice model, that strengthen the role of the RN.

Care of Residents and Families

In addition to enormous mortality and morbidity, nursing home residents faced the unintended consequences of restricted visitation and isolation practices that were implemented to curtail exposure to COVID-19. NHs reported that that residents had stopped eating and had “given up” without family visitation. Residents were
confined to their rooms, precluding their engagement in communal meals, activities, and normal levels of physical activity, all factors associated with delirium, nutritional problems, psychological distress, functional decline, and falls.\textsuperscript{38–40} A scoping review of restricted visitation described significant mental health consequences for the patient, including anxiety, loneliness, depressive symptoms, agitation, aggression, reduced cognitive ability, and overall dissatisfaction.\textsuperscript{41} Residents’ families were also negatively affected by this practice; lack of connectivity with loved ones added an additional layer of stress to the worry and anxiety they experienced in the face of the pandemic crisis.\textsuperscript{40}

Simple interventions promoted connectivity with families. For example, families were encouraged to drop off letters, drawings, or other packages and maintain contact with regular telephone check-ins.\textsuperscript{41} Video calls for residents to interact virtually with their families have been shown to decrease depressive symptoms, loneliness, and increase social interaction and quality of life.\textsuperscript{42–45} However, many NHs do not have the resources to promote everyday technology use to enable residents to connect with providers and families, which worsened health disparities.\textsuperscript{45–47} For example, a study conducted by Savage and colleagues\textsuperscript{47} found that residents who did not have personal contact, including phone calls, with loved ones during COVID-19 restrictions experienced 35% greater excess mortality compared with residents who had personal contact. When tablets and laptops have been made available, nursing staff have reported benefits such as increased resident well-being and increased family engagement in care plan meetings.\textsuperscript{36,47,48} In addition, staff described greater ease in educating families and connecting the residents to health care consultants.\textsuperscript{48,49} Resident unfamiliarity with technology and staff concern about technology being an additional burden have been barriers. However, studies demonstrated that residents were receptive to technology and technology actually reduced staff burden by keeping residents engaged and freeing up staff for other activities.\textsuperscript{43,44} Another technology known as simulated presence therapy, whereby recorded video messages from family or friends are replayed frequently, led to the enhanced well-being of residents living with dementia and decreased behavioral symptoms of distress.\textsuperscript{37}

The pandemic also demanded excellent basic nursing care.\textsuperscript{41} Nursing staff have reported that the use of face masks that have a clear window has helped with communication with residents. Preference congruence and positive interactions were supported by interdisciplinary assessment of the residents’ psychosocial needs, backgrounds, and preferences.\textsuperscript{41,49,50} Improvement initiatives focused on measures such as structured, consistent rounding to provide cognitive stimulation and social interaction, snacks and fluids, physical activity. The use of exergames have been shown to improve functional capacity and increased interaction with other residents, families, and friends. In addition, simple approaches to increase physical activity, including sit-to-stand exercises, walking, and encouragement of self-care in hygiene and grooming, could be incorporated into rounds and room visitations.\textsuperscript{51–54}

**Trauma-Informed Care**

For residents, staff, and families, the COVID-19 pandemic has been marked by isolation, uncertainty, and loss, all hallmarks of trauma.\textsuperscript{55} The Substance Abuse and Mental Health Services Administration (SAMHSA) guidelines define trauma as an event or pattern of occurrences that is experienced as harmful or threatening and has ongoing negative effects on the person.\textsuperscript{56} Viewing the pandemic as traumatic underscores the need to provide support to mitigate the effects of trauma. LTC residents’ response to trauma can present as increased anxiety, agitation, aggression, or withdrawal. Cornerstones of trauma-informed care include trying to understand the person (knowing
the person, looking for the reason behind behavior), acting with empathy, engaging the person’s social support, and providing choice whenever possible. The mainstay of treatment is nonpharmacological interventions including communicating and acting with empathy. Trauma experts have provided guidance during the pandemic to support the well-being of all members of the NH community, in the face of trauma that feels unrelenting and tests resilience. Box 1 provides a summary for increasing compassion resiliency and moral wellness.

Nursing home staff were particularly exposed and vulnerable to COVID-19. Many of these workers struggle with grief over the suffering they have witnessed, both at work and in their communities. Some have been infected with COVID-19 and recovered physically—but not emotionally. In addition to many experiencing COVID illness, staff at all levels described dramatic levels of personal distress, including feelings of helplessness, fear, and anxiety. Balancing high, often concurrent, and competing demands of work and family was reported as a major source of stress. There was frustration with operational challenges including inadequate access to personal protective equipment and COVID testing and lack of information and consistent guidance. Moreover, staff were dealing with their grief when residents died.

Attention to signs of burnout, difficulty coping, and substance misuse have required promote attention and referral to employee assistance programs and mental health professionals.

Strategies that NHs have implemented to support staff well-being include attention to the work environment including ensuring sufficient supply of PPE; consistency in assigned units; and clear, direct, and frequent communication from supervisors. Another strategy included instituting formal, scripted pauses at set times or debriefing after resident deaths or other stressful events. Moments of pause and huddles to acknowledge and verbalize difficulties and promote safe discussion have been helpful. Nurse administrators have also promoted staff morale and well-being through numerous small acts such as acknowledging team members for their work contributions, celebrating patient recoveries, and highlighting recognition from patients and families.

The pandemic crisis has demanded administrators and managers that are consistently present; attentive to multiple sources of information; nimble in their planning and responses; and effective in their communication with staff, residents, and families.

Box 1
Supporting compassion resiliency and moral wellness in postacute and long-term care settings: best practices

- **Refrain From Offering Nonempathic Responses**
  - Avoid giving advice, telling your own story, and interrogating
- **Offer Empathic Responses**
  - Use empathic reflection (It sounds like…Am I right?)
- **Pause When Starting to Get Reactive and Choose Your Response**
  - Be aware of your physical and emotional reaction
- **Decrease Blame**
  - Consider the other person’s experience
  - Try to figure out what matters most to the person
- **Create Empathic Support Structures**
  - Agree on how you can support the other person (eg, checking on at certain times of day).

*Adapted from Beausoleil.*
Practical operational tools are essential to support these practices. A large, urban LTC facility, Louis Brier Home and Hospital, developed a comprehensive check-list for easy review of measurable indicators associated with 12 infection control practices and policies. A list of the policies and practices developed by Havaei and colleagues\textsuperscript{50} are shared in Box 2. The nurse leaders complement these items with measurable indicators.

**The Role of the Nurse Practitioner in COVID-19–Related Care**

Nurse practitioners have a proven track record of providing safe and cost-effective care in LTC, improving resident outcomes, in the areas of polypharmacy, falls, restraint use, and transfers to acute care and thus are well positioned to lead and respond to the complexity of COVID-19 care.\textsuperscript{62–65} In addition to conducting comprehensive assessments, rapid recognition and response to clinical deterioration, symptomatic care, psychological support, and prevention of multiple potential complications, nurse practitioners provided other critical functions. Qualitative research with nurse practitioners described the foci of their work during the pandemic. They described the responsibilities associated with containing the spread of COVID-19 within the LTC homes, including working with management to implement and communicate the evolving COVID-19 recommendations from local health authorities and implement pandemic protocols such as resident cohorting and isolation plans, testing, and infection control practices. In many cases, the nurse practitioners provided the in-person clinical visits with residents when the physicians were making virtual visits only. A third critical function was providing emotional support to fearful staff and residents’ families and education about the pandemic and resident care needs. Maintaining relationships between residents and their families was also a focus of the clinicians’ work. Finally, the nurse practitioners acted as a liaison with other health care systems including acute care, home care, and emergency departments and worked with them to create policies, strategies, and algorithms to minimize fragmentation in care.\textsuperscript{66}

| Box 2 | Items in the check-list of best practice policies for nursing leaders |
|-------|---------------------------------------------------------------|
|       | • Screening                                                   |
|       | • Visitor policies                                            |
|       | • Hand hygiene                                                |
|       | • Respiratory hygiene and PPE                                |
|       | • Source control and physical distancing                      |
|       | • Point-of-care risk assessment                               |
|       | • Cleaning and disinfecting                                   |
|       | • Suspected and confirmed COVID-19 cases                      |
|       | • Psychological support for residents                         |
|       | • Psychological support for staff                             |
|       | • Monitoring (eg, staff levels, PPE availability)             |
|       | • Communication (eg, COVID-19 emergency response team, accessible response plan) |

Adapted from Havaei, MacPhee, Keselman and Staempfli.\textsuperscript{50}
In another study nurse practitioners described the complexity of their roles in promoting a dignified death for LTC residents during the COVID-19 pandemic. They described intensive engagement with residents and more frequently their care partners, to facilitate advance care planning and goals of care conversations. The nurse practitioners promoted comfort at end of life by prescribing pharmacologic and non-pharmacologic interventions symptom management; consulting with expert clinicians where needed; addressing the psychosocial needs of residents and families, and providing education to staff on comfort measures. Nurse practitioners also facilitated compassionate visits to care partners when their residents were imminently dying, allowing them to stay as long as possible while making sure that their PPE remained safely useable. The nurse practitioners also described “care after death,” which included informing the care partners of the death, upholding the pandemic-related policy of allowing only one grieving care partner at a time, and completing death certificates. They also educated and often supervised safe care of the resident’s body after death. A good deal of time was spent providing emotional support to staff, with minimal time to focus on in their own self-care.

Experts in advanced practice registered nurse (APRN) practice have recommended that APRNs (both nurse practitioners and clinical specialists) use their leadership skills to provide consultation and lead quality improvement efforts beyond the COVID-19 pandemic. There is a critical need to use evidence of past successes to influence NH owners, operators, and policy makers to extend and strengthen the APRN role in LTC.

ASSISTED LIVING AND ADULT DAY SERVICE: CONTEXT, STRATEGIES, AND LESSONS LEARNED

Assisted Living

More than 800,000 residents live in the 28,000 US assisted living facilities (ALFs); 52% are age 85 years and older and 30% are between the ages of 75 and 84 years. ALFs are not licensed as health care facilities; they do not provide round-the-clock skilled nursing care. There are no federal regulations for ALFs, and state regulations vary considerably. ALFs also vary widely in the array of services provided, ranging from around the clock assistance with daily living to on-call assistance. ALF care is largely private pay, although a small amount is reimbursed via Medicaid waiver programs. Some ALFs specialize in the care of people with dementia and other forms of cognitive impairment.

The staffing, structure, and resources of ALFs limit the capacity of ALFs to respond to the COVID-19 outbreak. The staff are largely unlicensed direct care workers, and the number of nurses varies widely. Unlike NHs, there is no requirement for a medical director or an infection control practitioner. There are also no standard requirements for infection control or an infection control practitioner, as there are in NHs. Residents may receive care from their personal medical provider; they are not required to have regular medical visits. Residents often rely on external providers to provide home care attendants in their own apartment or rooms. Although residents could be restricted to their rooms, it would require significant staff to provide needed care and residents would need to agree to adhere to such restrictions, which makes it difficult to enforce such universal precautions. This structure is also not as conducive as NHs to cohort residents. Consequently, ALFs have relied on close collaboration with local health authorities and service agencies to guide infection control practices and monitoring.

Approximately 42% of assisted living residents have dementia, who may be particularly vulnerable to the adverse effects of social isolation and loneliness from visitor
The overall lower numbers of staff and lack of a requirement for a nurse on staff predispose the residents to complications including falls, dehydration/nutritional problems, and delirium. Advanced practice RNs and home care nurses with palliative care expertise have been engaged in some ALFs and in some instances have addressed these challenges. In one ALF, in Washington, the palliative care nurse collaborated with APRNs to triage residents, manage symptoms, coordinate the functions of the interdisciplinary team, and monitor health patterns among all residents. A dedicated palliative RN was enlisted to coordinate prompt goals of care conversations with all residents, which was necessary because of the rapid deterioration of some residents once they became symptomatic. The palliative team supplemented the efforts of the remaining staff to provide an extra layer of support to meet the social, emotional, and spiritual needs of the residents who were finding themselves suddenly shut off from their usual social support in a time of crisis.74

In addition to the care provided to individual residents, the palliative care nurses and team supported the implementation of systemic approaches to support comfort and well-being in residents. The team brainstormed with staff to develop a tool to measure and track baseline function and promote activity and “new normal” activities of daily routine. Residents who qualified for a restorative plan of care were formally admitted to home care. Those who were at risk for deconditioning participated in exercises in their rooms; some followed exercise instruction via a closed-circuit television channel. The team worked with the facilities’ dietary staff to provide fluids on each floor that could be offered between meals. Because residents missed the socialization and ambience of communal meals, staff members sat in the room with residents to socialize during meals and replated the meal from Styrofoam onto the resident’s own dinnerware. Intake and output sheets were posted so that poor intake could be identified and addressed. Residents who were COVID-positive often deteriorated rapidly and were provided hospice-like care, including bereavement support to other residents, staff, and families.74

Even with the support of external services agencies and services, COVID-19 has presented ongoing challenges for assisted living to maintain resident quality of life. Notably, there have been more than 44,000 additional deaths due to dementia since February 1, 2020.75 Experts opine that this statistic underscores a need for attention to resident health and quality of life and the integration of more, consistent psychosocial and medical care into ALs. This type of progress would need to be informed by research on different models of integrated, interdisciplinary health care that engage relevant stakeholders including residents, families, staff, administrators, and regulators in their development and evaluation.76

**Adult Day Services**

Adult day services provide a planned program offered in a group setting for older adults and persons with disabilities that offers social activities, meals, and health care monitoring. Services offered can vary; some provide case management, complex nursing care, rehabilitation, and caregiver training.6 Adult day services also provide respite and relief to family caregivers so they can work or attend to other responsibilities and self-care needs. The programs are staffed by nurses, social workers, health aides, activity professionals, and other health professionals such as rehabilitation therapists. As of 2016, there were 4600 adult day programs serving approximately 286,300 older adults throughout the United States.9 The predominant payer is Medicaid (66%).77 The Veterans Administration is the second largest public source
of reimbursement. Medicare does not pay for adult day services. Some participants pay out of pocket for care and even fewer use LTC insurance to pay for care. Participants in adult day services tend to have a high prevalence of chronic health conditions that have been associated with risk for severe illness from COVID-19 such as hypertension, diabetes, or dementia. Because of their multiple comorbidities, many clients who attend adult day services would be eligible for nursing home level care, yet because of their preferences to age-in-place they remain in the community and use adult day services. The COVID-19 pandemic forced ADS to close and abruptly end in-person services to clients. Most of them were closed due to a state mandate. In a national survey, sites continued to provide included telephone support (n = 22, 100%), delivery of food (n = 8, 36.4%), medical check-ins (n = 9, 40.1%), and activity via Zoom or YouTube (n = 14, 63.6%). Most of these services were provided without reimbursement. In these cases, nurses and other staff and administrators volunteered their time demonstrating extraordinary commitment to their clients. In some states, Medicaid waivers covered reimbursement for daily telephonic wellness check-ins, online social and activities, and care-coordination services. An important lesson offered by the experience of adult day services is the valuable contribution of remote and flexible services offered during the pandemic. Future research is warranted that examines the clinical efficacy and cost-effectiveness of reimbursing these services.

SUMMARY

The needs of older adults admitted to LTC settings are increasingly complex. The COVID-19 pandemic has highlighted the need to not only prepare for crises but also respond with nurse-led care and services that are person-centered, family-engaged, and support interdisciplinary collaboration. Furthermore, models of care need to incorporate a comprehensive commitment to function and well-being—physical, social, and emotional—of older adults, their families, and staff.

CLINICS CARE POINTS

- The infection preventionist (IP) nurse is an essential role to track cases of infection, educate staff, oversee testing, and monitor facility infection prevention and control practices.
- The unintended consequences of restricted visitation and isolation practices for residents include depression, anxiety, delirium, nutritional problems, symptoms of psychological distress, delirium, and functional decline.
  - Nursing interventions include encouraging regular family contact via telephone or video messages and recorded video messages from family/friends.
  - Structured, consistent rounding to provide cognitive stimulation and social interaction, snacks and fluids, and physical activity help prevent delirium and functional decline.
  - Sit-to-stand exercises, walking, and encouragement of self-care in hygiene and grooming can be incorporated into rounds and room visitations.
- Trauma-informed resident care includes knowing the person, looking for the reason behind behaviors, acting with empathy, engaging the person’s social support, and providing choices.
- Strategies to support staff well-being include ensuring sufficient supply of equipment, consistent assignments, and clear, solid communication from supervisors, staff huddles that allow pause, acknowledging staff contributions, celebrating resident recoveries, and highlighting recognition from patients and families.

DISCLOSURE

The authors have nothing to disclose.
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