November 2022

Assisted Living Administrators' Perspectives of how COVID-19 Affected Direct Care Staff

Carlyn E. Vogel
University of South Florida

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by

Carlyn E. Vogel

A dissertation submitted in partial fulfilment
of the requirements for the degree of
Doctor of Philosophy
School of Aging Studies
College of Behavioral and Community Sciences
University of South Florida

Major Professor: Debra Dobbs, Ph.D.
Lindsay Peterson, Ph.D.
Hongdao Meng, Ph.D.
Victor Molinari, Ph.D.
Mingyang Li, Ph.D.

Date of Approval:
October 24, 2022

Keywords: long-term care, pandemic, leadership, staffing, quality of care

DEDICATION

This dissertation is dedicated to my family and friends whose never-ending support and encouragement kept me moving in the marathon of graduate school. I could not have hoped to successfully earn a doctoral degree without all of them by my side. I would also like to acknowledge Dr. Dobbs for her mentorship throughout the years. I have learned invaluable skills from her that will help me succeed in my career. I want to thank the faculty, staff, and graduate students at the School of Aging Studies for helping me in countless ways throughout my time in the program. Navigating graduate school would not have been possible without them. Finally, I would like to give a special "Thank you" to the students who were there for me during the best and the worst of times. Thank you for keeping me grounded and reminding me that "[I] can do hard things." It has been an honor to share this experience with you.

ACKNOWLEDGMENTS

I would like to acknowledge the National Institute on Aging for funding the research from which this dissertation was conducted (R01AG060581-01, Project Title: Strategic Approach to Facilitating Evacuation by Health Assessment of Vulnerable Elderly in Nursing Homes II [SAFEHAVEN II], PI: Lindsay Peterson, University of South Florida).

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ABSTRACT

Background: Coronavirus disease 2019 (COVID-19) presented many new challenges within assisted living communities (ALCs) and exacerbated preexisting challenges. With high quality of care in ALCs as the continuous goal to achieve, it is important to recognize challenges faced in these communities, especially those related to staffing and COVID-19.

Objective: The objective was to investigate issues related to staffing and the effect of COVID-19 in ALCs, including staff absence, leadership, impacts on staff, and impacts on staff retention.

Methods: Participants were ALC administrators from the NIA-funded parent study titled Strategic Approach to Facilitating Evacuation by Health Assessment of Vulnerable Elderly in Nursing Homes II (SAFEHAVEN II) funded by the National Institute on Aging. Quantitative analysis was used to determine the structure and process characteristics of ALCs during COVID-19 that impacted a process outcome. Qualitative analyses were used to gain the perspectives of administrators about the impact of COVID-19 within their ALCs.

Results: Provision of memory care services (structure characteristic), sending staff home to comply with COVID-19 precautions, paying staff for time off due to COVID-19 infection or precautions, and staff anxiety (process characteristics) were significant predictors of staff absence from work (process outcome). Three key themes interpreted from administrators' interviews were Leadership Shown Toward Staff, Impact of COVID-19 on Staff, and Impact of COVID-19 on Staff Retention.

Implications: This dissertation discusses implications for research, policy, and practice to inform continual efforts to improve aspects of staffing and the quality of resident care in ALCs.

CHAPTER 1: INTRODUCTION

Background on Assisted Living

The growing population of older adults has led to an increased demand for long-term services and supports to meet their needs. Nursing homes (NHs) were developed as a way to provide the necessary services for older adults as they age. Over the years, criticisms of NHs made way for less institutionalized residential care settings within long-term care (LTC) known as assisted living (AL). While NHs generally serve people with ongoing medical needs and are required to provide 24/7 nursing services (Becker, Schonfeld, & Stiles., 2002; Zimmerman & Sloan, 2007), AL serves people who do not need 24-hour medical and nursing care but who still need support through specialized, routine scheduled or unscheduled nursing care and medication assistance (Becker et al., 2002; Brown Wilson, 2007; Chapin & Dobbs-Kepper, 2001).

AL has been defined by the Assisted Living Quality Coalition (1998) as "a congregate residential setting that provides or coordinates personal services, 24-hour supervision and assistance that is able to meet scheduled and unscheduled needs, activities and health-related services; designed to minimize the need to move; designed to accommodate individual residents' changing needs and preferences" (pg. 65). As of 2018, an estimated 31,400 residential care communities were in the U.S. with approximately 1.1 million licensed beds and over 918,000 residents (Sengupta et al., 2022). In general, residents of assisted living communities (ALCs) cannot live independently but do not necessarily require the level of care provided in NHs. AL is a way for them to receive supportive services in a home-like environment while maintaining

their autonomy. ALCs attract less physically impaired residents from NHs as they serve as a potential substitute to NH care for healthier older adults (Grabowski et al., 2012).

Based on national estimates, residents living in residential care facilities, or ALCs, are majority non-Hispanic white, female, and over the age of 85 with approximately four out of ten receiving support with three or more activities of daily living (ADLs) (American Health Care Association (AHCA) & National Center for Assisted Living (NCAL), 2020; Becker et al., 2002; Caffrey et al., 2012; Street et al., 2009). In addition, high blood pressure and dementia were the most prevalent chronic conditions present among over three-fourths of residents (Caffrey, 2012; Carder et al., 2015) with over half (52%) of residents who have high blood pressure and roughly 42% who have Alzheimer's disease and related dementias (ADRD) (Harris-Kojetin et al., 2019; AHCA & NCAL, 2020). AL has become a leading provider for residents with ADRD given the emphasis on supportive care compared to medical care. However, Thomas and colleagues (2020b) suggest there are differences in access to ALCs for residents with ADRD given state by state variation in the prevalence of ADRD among residents. This could mean that some ALCs are more regulated or strict on the services they can offer given their state guidelines. Therefore, variation by state is also seen in the services provided depending on the population an ALC is licensed to serve.

Rather than being regulated at the federal level like NHs, ALCs are governed by state laws and regulations. Therefore, regulations and regulatory structures may vary from state to state. A compendium of residential care created by Carder and colleagues (2015) explains various aspects of this LTC sector between the different states. Within the state of Florida, there are four licensure types that dictate regulatory structures, the types of residents within the ALCs, and the staffing requirements. In addition to a standard license, the specialty licenses include

limited nursing services (LNS), extended congregate care (ECC), and limited mental health (LMH). Most ALCs in Florida have only the standard license or a combination of the standard license and either an LNS or ECC license (Street et al., 2009). The specialty license a facility has dictates what services can be offered at that ALC, and the types of services offered can dictate aspects of the facility structure. Standard licensed ALCs provide basic housing, meals, and personal care services to the residents. Adults who are more frail with greater physical and cognitive challenges likely need an ALC that can provide additional physical care services than just a standard license facility can provide. In this case, ALCs with an ECC or LNS license would fit this population more appropriately. These ALCs can also serve younger individuals who have physical disabilities, traumatic brain injury, or serious mental illness. However, ALCs with an LMH license are more likely to serve this younger population who may also display behavioral issues. Residents at ALCs with an LMH license are more likely to be racially diverse and single men (Street et al., 2009). In sum, traditional ALCs in Florida hold only a standard license, communities with residents who experience high frailty hold an ECC or LNS license, and communities with residents who have behavioral or other severe mental health needs hold an LMH license.

The costs of ALCs depend on the type of AL (e.g., license type), the care offered to residents, and the location of the ALC. The U.S. national median cost for a private room per year is $54,000 (Genworth, 2022). While the majority of costs are paid privately through residents and their families, some states have adopted Medicaid Managed LTC programs to operate services funded by Medicaid. As of 2021, 24 states adopted managed long-term services and supports programs (Medicaid and CHIP Payment and Access Commission, 2022). Even though

the cost of ALCs is significantly lower than NHs, affordability is still a major concern for the sustainability of this industry (Dobbs et al., in press).

Along with different types of services offered in the AL setting, ALCs also take the form of different types of buildings. Unlike NHs, AL offers a variety of living arrangements depending on cognitive and functional impairment levels. This includes smaller homes to large, corporate-owned settings. For example, if the ALC offers memory care services, there may be a separate floor, wing, or building within the community specifically for residents who receive that care. Some ALCs are freestanding communities and others are part of a continuing care retirement community with separate buildings for independent living, AL, and skilled nursing (Dobbs et al., in press). Overall, the differences in regulatory structures for NHs (at the federal level) and ALCs (at the state level) highlight a key difference between these two LTC settings.

AL, in general, supports older adults' ability to age-in-place within a communal setting. ALCs foster a home-like environment that prioritizes residents' personal choices and care preferences. The quality of care provided to residents within ALCs is an important research topic to explore and aspect of care to address. While there are many factors that can impact quality of care, factors of the AL workforce are of particular importance as the staff are the individuals who provide such quality. The following sections further discuss AL philosophy and quality of care, including major impacts on this care.

Assisted Living Philosophy

Key components of the AL philosophy are to provide person-centered care and promote quality of life. A clear representation of this philosophy can be seen in the culture change movement, where the approach to care moves away from the medical model and toward a more resident-centered philosophy and home-like environment. Examples of the culture change

movement in action are the Eden Alternative and the Green House model (Kane et al., 2007; Zimmerman & Cohen, 2010). This movement aims to alter LTC with an emphasis on the improvement of residents' daily experiences and quality of life (Koren, 2010; Miller et al., 2014; White-Chu et al., 2009; Zimmerman & Cohen, 2010). The key components of culture change include workforce redesign, individualized care, and resident choice (White-Chu et al., 2009). The workforce design component of culture change embraces self-directed work teams with less focus on a hierarchy among staff, and residents hold more personal responsibility to dictate their own schedules and activities (White-Chu et al., 2009). The implementation of culture change has been found to improve quality and reduce deficiencies in NHs (Miller et al., 2014). With AL as a potential substitute for NHs (Grabowski et al., 2012; Silver et al., 2018), the adoption of the culture change movement is a way some NHs try to stay competitive in the LTC market (Koren, 2010). The overall philosophy within AL makes it an attractive option for many older adults.

The ability for an adult to age in place is a main principle of the AL philosophy as it was originally conceived. The key to this philosophy is for the facility to adjust the care and assistance given to residents with the goal of preventing unnecessary transfer to a higher level of care (Chapin & Dobbs-Kepper, 2001). This allows residents to age in place for a longer period of time and transfer to a new setting less often. This original concept of AL philosophy also emphasizes greater resident control and autonomy with choices about their time, personal space, medical and health-related care, and general lifestyle (Brown & Wilson, 2007; Chapin & Dobbs-Kepper, 2001). Over time, AL has evolved with the needs of older adults. Zimmerman and colleagues (2022) explain that although AL has the intention to provide person-centered care and high quality of life, various tensions within this setting have made it difficult to prioritize these key constructs of the AL philosophy. According to Zimmerman and colleagues (2022), central

tenets of AL include “services that are supportive of and responsive to care needs, an operating philosophy emphasizing choice, and a residential environment with the features of home, all combining to provide person-centered care and promote quality of life” (p. 7). However, these tenets “have taken a back seat to tensions inherent in models of AL, regulation, financing, resident acuity, and the workforce”, even with AL philosophy in mind (Zimmerman et al., 2022, p. 7). These researchers expect that addressing tensions that may be hindering ALCs’ ability to fully embrace and practice the AL philosophy will improve residents’ quality of life.

Quality in Assisted Living

The quality of AL is a crucial research topic to explore to further address aspects of care. NHs have federally mandated quality improvement measures. ALCs, on the other hand, do not follow the same regulations or consensus on what determines quality. Researchers agree on the complexity and multidimensional nature of quality within AL (Hawes & Phillips, 2007; June et al., 2020; Spilbury et al., 2011). Hawes and Phillips (2007) explain how quality includes several dimensions, such as quality of care and resident quality of life, along with the physical environment and resident rights, that comprise a meaningful measure of AL quality. Because AL is regulated by states, data on AL quality vary by state (June et al. 2020). For example, researchers in Florida use deficiency data to measure structure characteristics associated with quality of care (June et al., 2020). These researchers found specialty license, ownership, and region were associated with ALCs receipt of deficiencies (June et al., 2020).

Other approaches to quality measures in AL include the investigation of how well an ALC adheres to key principles of the AL philosophy (Hawes & Phillips, 2007) and the evaluation of the network of people involved in care, including staff, residents, and residents’ families (Hawes & Phillips, 2007; Kemp, Ball, & Perkins, 2013; Kemp, Ball, & Perkins, 2019;

Kemp et al., 2020; Rantz et al., 1999; Spilsbury et al., 2011; Zimmerman et al., 2005). The investigation of how well an ALC embraces or adheres to the AL philosophy is another way to measure and conceptualize quality within this setting. One indicator of this adherence is whether the ALC provides or fosters resident autonomy and independence (Hawes & Phillips, 2007; NCAL, 2014b). This can be seen within the physical environment as well as in the different activities and options available to residents. For example, aspects of an environment that promote resident autonomy include possession of a private apartment and bathroom, and freedom to adjust aspects of their personal environment accordingly (e.g., rearrange furniture, adjust the room temperature, etc.). An ALC can also promote independence through the offer of a variety of activities to promote their health and the implementation of policies and practices that allow residents to make more choices for themselves (e.g., what activities to participate in and what food they want to eat). Other indicators of quality in this context include whether a facility meets the scheduled and unscheduled needs of its residents and if they facilitate aging in place (Hawes & Phillips, 2007). This can be seen through the availability and staffing levels of nurses, the medication assistance that is provided, the availability of special services (e.g., help with toileting), as well as staff training and knowledge. Whether the community facilitates aging in place can be determined in their policies on Medicaid use, wheelchairs and walkers, and resident discharges. The availability of supportive devices and the ability to manage residents' mental deterioration also indicate aging in place.

Quality within ALCs includes the whole network of people involved in someone's care, or their "convoy of care" (Kemp et al., 2013), including the residents and their families in addition to AL staff. Kemp and colleagues (2019) discuss how care is provided by residents and both formal (i.e., staff) and informal (i.e., residents' families) caregivers. Their qualitative

grounded theory approach to quality in AL developed a conceptual model titled "individualizing health care" (Kemp et al., 2019). This model identifies routine, acute, rehabilitative, and end-of-life care as the different health domains one's care network provides. Kemp and researchers (2020) later identified "communicative competence" as a framework to explain residents' or care partners' ability to communicate when changes occur in residents' health. This highlights the importance of familiarity with residents to better assess any changes that may occur and speaks to the need for continuity in one's care network, especially with AL staff.

Staffing and Quality

While there are many factors that can impact quality of care, factors of the AL workforce are of particular importance and are highlighted in research on quality in LTC (June et al., 2020; Rantz et al., 1999; Spilsbury et al., 2011; Zimmerman et al., 2022). A few common themes that have been interpreted include aspects of communication (Kemp et al., 2020; Rantz et al., 1999; Zimmerman et al., 2005), consistent and available staff (Rantz et al., 1999; Spilsbury et al., 2011; Zimmerman et al., 2022) and training (Dobbs et al., 2022; Dobbs et al., in press; June et al., 2020; Spilsbury et al., 2011; Zimmerman et al., 2022). Communication involves the staff, residents, and the residents' families. Zimmerman and colleagues (2005) explain that staff should communicate with residents more frequently and in a positive way to improve AL quality. Effective communication between staff and toward residents can more easily be achieved when staff are consistently present within the environment and available to the residents. Low turnover is then one way to measure quality as the staff are better able to develop connections with each other and with the residents.

Consistent staff and low turnover are also beneficial for training purposes. June and colleagues (2020) found that the two most common deficiencies in Florida ALCs were staffing

standards and staffing in-service training. These are vital aspects of quality in order to protect adults in ALCs and prevent harm due to insufficient training. Dobbs and colleagues (in press) explain that when staff lack the necessary education on basic knowledge about normal aging and geriatric conditions, changes in residents' health may go unnoticed and unaddressed. In addition to education about changes seen with normal aging, of particular importance in training is infection control, abuse, maltreatment, and domains central to dementia, such as pain management and behavioral symptoms (June et al., 2020; Zimmerman et al., 2022; Dobbs et al., 2022). While many states require direct care staff to participate in dementia care training (Carder et al., 2015), recent research highlights the importance of training specific to staff reactions to the behaviors of persons with dementia (Dobbs et al., 2022). Researchers used the Antecedent-Behavior-Consequence (ABC) model to explore how AL staff perceive and respond to such behaviors (Dobbs et al., 2022). Their research emphasizes the importance of staff ability to recognize and respond to antecedents to avoid behavioral expressions of residents with dementia (Dobbs et al., 2022). This is one way to practice person-centered care for dementia care. The significance of training is further expressed by Zimmerman and colleagues (2022), who propose one solution to tensions within the AL nurse and direct care workforce is to further address their training needs. More rigorous training may help address workforce challenges and make this workforce more professionalized (Zimmerman et al., 2022).

It is important to understand the research that surrounds the concept of 'quality' within AL. Given the complex nature of this concept, as previously stated, Hawes and Phillips (2007) explain the need for a variety of dimensions to consider with quality, including residents' quality of life, their rights, and the physical environment the facility provides. To view AL quality in a multidimensional way provides a more accurate and meaningful comprehension of this concept.

Structure-Process-Outcome Model

A well-established framework to study quality of care outcomes in health and LTC settings is Donabedian's (1985) Structure-Process-Outcome (SPO) model. This model is used to explain the relationship between organizational structures, processes, and resident quality of care outcomes (Bhattacharyya, Molinari, & Hyer, 2021; Castle & Ferguson, 2010; Dobbs, Kaufman, & Meng, 2018; Holup et al., 2012; Port et al., 2005; Temple, Dobbs, & Andel, 2009; Thomas et al., 2012). Structures refer to the organizational characteristics such as size, ownership, chain affiliation, staffing levels, resident case-mix, and rural/urban geographic location (Castle & Ferguson, 2010; June et al., 2020; Shippee et al., 2019; Temple et al., 2009). Processes are actions that are taken within the provision of care, including medical record keeping (Holup et al., 2012; June et al., 2020), medication administration (Castle & Ferguson, 2010), end-of-life care training (Dobbs et al., 2018), and family involvement (Port et al., 2005). In the model, Donabedian argues good structures lead to good processes which in turn result in good quality outcomes for individuals (Dobbs & Montgomery, 2005).

Common outcomes for quality include health and functional status measures (improved function, fewer falls) (Castle & Ferguson, 2010; Thomas et al., 2012), mortality (Dean, Venkataramani, & Kimmel, 2020), hospice use (Dobbs et al., 2012, 2018), and hospital use (Dobbs et al., 2012). Satisfaction is another common quality outcome where family and residents' perceptions of quality have been used (Bhattacharyya et al., 2021; Dobbs & Montgomery, 2005; Shippee et al., 2019). For residents with dementia, Dobbs and Montgomery (2005) argue family outcomes are an appropriate indication of the quality of care given limitations on resident outcomes due to progressive cognitive impairment. With a consensus on the complexity of quality (Burnhans, 2007; Hawes & Phillips, 2007; June et al., 2020; Spilsbury

et al., 2011), the application of Donabedian's (1985) SPO model within ALCs is useful for understanding the different structures and processes that can impact quality outcomes. The following two sections focus on organizational structure and process characteristics specific to staffing in ALCs that can impact the quality of care.

Structure. Organizational characteristics that can affect the quality of care provided to residents include the facility size, whether facilities are for-profit or not-for-profit, whether they are part of a corporate chain, their resident case-mix, and nurse staffing requirements (Castle & Ferguson, 2010; June et al., 2020; Shippee et al., 2019; Temple et al., 2009). Temple and colleagues' (2009) research in NHs indicates that structure characteristics are associated with turnover rates, which can have implications for quality of care. Large facility size and high levels of nurse staffing were associated with reduced likelihood of high turnover of nursing assistants while for-profit status increased likelihood of high turnover (Temple et al., 2009). More recent research investigating AL staff ability to identify antecedents to behavioral expressions (the quality outcome) found structure characteristics of smaller community size and dementia-only communities were associated with more frequent identification of antecedents (Dobbs et al., 2022). Knowledge about how these structure characteristics may influence quality outcomes is essential to address and improve quality within LTC settings.

Another structure characteristic is licensure type that then influences the type of staff who are employed and the services they can offer. As previously discussed, there are four different license types in Florida: standard, extended congregate care (ECC), limited nursing services (LNS), and limited mental health (LMH). While facilities with a standard license assist with self-administration of medications and provide personal care services, facilities with a specialty license provide additional services (Carder et al., 2015). The provision of additional services may

be beneficial and necessary for a resident's care to be of high quality based on their needs. For example, if a resident needs a catheter, care for casts, braces, or splints, or is on hospice and in need of complete help with activities of daily living (ADLs), a facility with an LNS license would be able to provide such care (Carder et al., 2015). If a resident requires additional nursing services (e.g., total help with bathing, dressing, toileting), more frequent nursing assessments, dietary management or supervision of nutrition, or administration of medication, a facility with an ECC license would provide the resident with the necessary services (Carder et al., 2015).

A staffing factor that may impact quality of care is related to stigma. Zimmerman and colleagues (2016) explored how stigmatizing structures and processes active within the facility can be improved to benefit resident care within LTC settings. One theme that emerged in regard to structure and staffing was staff training. Staff who had the training to provide appropriate care protected against stigma in a way that made residents feel safe to express what they need for their care (Zimmerman et al., 2016). This expression of need is pivotal in staff's ability to provide quality care to each resident. On the other hand, staff who were not properly trained to provide a needed service may have caused harm in the practice of that service (Zimmerman et al., 2016). This may lead the resident to feel unsafe with poor quality of care due to a lack of appropriate training.

Process. Process factors related to staff that can affect quality of care include medical record keeping (Holup et al., 2012; June et al., 2020) and participation in training (Dobbs et al, 2018, 2020; Zimmerman et al., 2022). Up-to-date maintenance and use of electronic medical records may improve various aspects of organization productivity as well as resident health outcomes (Holup et al., 2012). This practice has potential to enhance the appropriateness of care provided to residents. Staff participation in training programs is also beneficial to care. ALs with

a high percentage of staff who were trained in end-of-life care were more likely to utilize hospice care (Dobbs et al., 2018). Similarly, AL staff increased their knowledge of palliative care and integrated this knowledge in the workplace after participation in a Palliative Care Education in Assisted Living (PCEAL) program (Dobbs et al., 2020). Lack of participation in such training may lead to lack of appropriate care that may benefit a resident. Such lack of quality can be avoided with the proper process characteristics practiced by staff.

Stigma-related factors also play a role in process characteristics related to staffing. Staff recognition of the impact of death and avoidance of labels are two processes that may impact the quality of a resident's overall care within an ALC and avoid stigma (Zimmerman et al., 2016). This example emphasizes that quality refers to more than one's medical care but also includes how a resident feels they are treated in their environment. Zimmerman and colleagues (2016) point out that how staff handle the death of residents and inform others about it can either make residents feel included and a part of the community or excluded as an outsider. This process characteristic can impact how residents view the quality of their treatment and can be harmful to their overall experience within an ALC. In a similar way, the labels staff may use for residents can have a negative impact on their care experiences. While the type of resident, or the resident case-mix, is a structure characteristic, how the staff treat the residents and label them is a process characteristic. The use of labels relates to respect of the residents and speaks to the value they hold in the eyes of the staff. It is a disrespectful and demeaning approach to care when staff use language that refers to the condition or assistance residents require rather than the residents themselves. Poor acknowledgement of resident deaths in the community and use of demeaning labels do not foster the achievement of high quality of care.

Leadership and Quality

With evidence that employee satisfaction and staff burnout in the LTC setting are associated with quality of care (Caspar et al., 2020a; Caspar et al., 2020b; Rivette, Hammond, & West, 2019), researchers have investigated how ALCs as a workplace can support their employees to better improve both employee and resident experiences. In addition to different job characteristics, such as pay/wages, promotions, and involvement in care planning as important factors for job turnover and satisfaction (Temple et al., 2009; Purk & Linsday, 2006; Zimmerman et al., 2022), the leadership demonstrated by a supervisor or administrator, a process characteristic, can influence the AL work environment. Previous research found that nurses in a leadership role highlighted the importance of empathy for staff and management of their own emotions to build positive relationships and exchanges (McGilton et al., 2009). How an administrator demonstrates leadership can positively influence the staff they manage.

Research also highlights that supportive and responsive leadership can improve quality (Caspar, Le, & McGilton, 2017; Spenceley, Caspar, & Pijl, 2017). The NCAL (2014a) further emphasize the importance of leadership in AL through their report on guiding principles for leadership in this setting. Effective communication, respectful attitudes, and recognition of staff experiences and efforts are a few points of consideration (NCAL, 2014a). The relationships an administrator creates through their leadership may foster better experiences for their staff and their ability to provide better quality of care to residents.

COVID-19 and Quality

A more recent addition to the complexity of factors that can impact quality of care is the COVID-19 pandemic. The pandemic caused a plethora of new challenges for quality of care in ALCs. In February 2021, roughly 5% of all cases in the United States were in LTC settings

(Kaiser Family Foundation (KFF), 2021). Even with a general trend of a decrease in known cases, deaths, and positivity rates, especially with the administration of vaccines (Florida Department of Health, 2021), ALCs still experience serious additional challenges in the provision of care for their residents.

Before the COVID-19 pandemic, researchers investigated the needs of LTC settings in preparation for a variety of disasters (Dobalian et al., 2010; Dosa et al., 2008; McEntire et al., 2010; Stough & Kang, 2015). Research specific to these settings is vital given the vulnerable population that resides within them. Stough and Kang (2015) highlight the importance of the creation of disaster frameworks specific to people who have disabilities, and the view of those individuals as partners in creating a plan versus a more passive role. McEntire and colleagues (2010) also emphasize the consideration of vulnerability in disaster planning and preparedness. When it comes to biological disasters, such as the COVID-19 pandemic, LTC settings may have an especially difficult time with residents who have low immunity and may be careless about proper hygiene and personal distancing (McEntire et al., 2010). These factors need to be considered in disasters plans within ALCs.

Similarities can be drawn between the research conducted on hurricane disaster preparedness and the COVID-19 pandemic. Dosa and colleagues (2008) point out that residents of NHs are at a higher risk for consequences of disasters, like a hurricane. This is especially true for the consequences of COVID-19 in all LTC settings. As most AL residents are 85 years and older with one or more chronic conditions, they define the population at the highest risk for serious complications with COVID-19 (Thomas et al., 2020a). In addition, residents have reduced immune system capacity due to aging, and their physical and/or cognitive impairments can add additional challenges to infection control measures (Estabrooks et al., 2020; Thomas et

al., 2020a). Dosa and colleagues (2008) also discuss the challenges with disruptions in routine care due to evacuations or emergency admission to other facilities during a hurricane. The same disruption occurred with the need to social distance or isolate residents, or transfer them to a different facility, due to COVID-19. In the case of hurricanes and a pandemic, residents are put at a higher risk of mental health problems, especially depression and anxiety with the need for social distancing and isolation.

There is a call for the creation of a plan with comprehensive emergency operation management and strong infection control protocols (Dobbs et al., 2020; Estabrooks et al., 2020; Grabowski & More, 2020; Thomas et al., 2020a). Additional pay, support, resources, training, and programs to supplement the AL workforce are essential to face and overcome these challenges presented by COVID-19 (Grabowski et al., 2020; Thomas et al., 2020a). Low COVID-19 vaccination rates of staff can potentially harm the quality of care provided to residents by increasing the risk for resident and staff COVID-19 infection rates, missed shifts from work, and higher turnover due to vaccine mandates by some AL providers (KFF, 2021). It is pivotal to continue research and investigation of information about the impact of COVID-19 within ALCs to prioritize the protection of these vulnerable communities.

Purpose of Dissertation

To achieve and maintain high quality of care in ALCs, it is important to recognize challenges faced in these communities, especially those related to staffing and the COVID-19 pandemic. To understand the challenges administrators faced from their own perspective will help improve the quality of resident care provided by staff. Current research lacks in knowledge on these perceptions related to the impact of COVID-19. Such perspectives are crucial to understand and ensure ALC residents receive high quality of care. This dissertation aims to

enhance comprehension of these challenges through perspectives of AL administrators with the employment of both quantitative and qualitative methods by examining 1) structure and process characteristics of ALCs during COVID-19 and whether these characteristics were associated with a process measure (staff absence from work); and 2) the perspectives of AL administrators of the impact of COVID-19 on staff, staff retention, and leadership.

CHAPTER 2: ASSISTED LIVING ADMINISTRATORS AND COVID-19

Background

Assisted living communities (ALCs) continue to face difficulties with staffing, especially throughout the times of the coronavirus disease 2019 (COVID-19) pandemic. According to the American Health Care Association (AHCA) and National Center for Assisted Living (NCAL) (2021), 96% of ALCs face a shortage with their staff, and many ask staff to work extra shifts or overtime due to this shortage. Additionally, 61% of ALCs are concerned about the closure of their facilities due to workforce challenges (AHCA & NCAL, 2021). Zimmerman and colleagues (2022a) identify the direct care workforce as a major tension within assisted living (AL) and propose potential solutions, such as change in pay and benefits, improved supervision, more appropriate workloads, and additional training. These solutions were particularly important during the pandemic when many workforce challenges were exacerbated.

As discussed in the introduction of this dissertation, structure and process characteristics related to staffing affect the quality of care in long-term care (LTC) facilities. An example of a structure factor associated with quality is the ability to meet staffing requirements (Caspar et al., 2020a; Caspar et al., 2020b; Spilsbury et al., 2011). Process factors include staff burnout and satisfaction (Caspar et al., 2020a; Caspar et al., 2020b; Rivette, Hammond, & West, 2019), consistent staffing (Rantz et al., 1999; Spilsbury et al., 2011), aspects of communication (Kemp et al., 2020; Rantz et al., 1999; Zimmerman et al., 2005), and training (June et al., 2020; Spilsbury et al., 2011; Zimmerman et al., 2022a; American Geriatrics Society, 2022). The COVID-19 pandemic has exacerbated staffing challenges and presented new ones. In addition to

the challenges ALCs faced with the pandemic and care for the population most vulnerable to the virus, many communities experienced challenges related to staffing requirements, various challenges with direct care staff, and staff absence from work.

The license a community holds also plays a role in the staffing and the types of challenges a community may have experienced during COVID-19. Given the variation in AL residents and their needs, some states have developed their own license types to cater the services provided within ALCs (Smith et al., 2021). As described in the introduction to this dissertation, there are four license types in the state of Florida that dictate regulatory structures, the types of residents within the communities, and the staffing requirements. These licensure types are standard, limited nursing services (LNS), extended congregate care (ECC), and limited mental health (LMH). ALCs with an ECC or LNS license are required to employ or contract with a nurse who is available to residents as needed (Carder et al., 2015) because these communities serve adults who experience greater physical and cognitive challenges and who need additional services than a standard license can provide. Having a nurse on staff and whether they are from a third-party provider may impact an ALC's COVID-19 positivity rate. Larson and Carroll (2020) found that ALCs without nursing services and communities that used a third-party nursing provider were more likely to have positive COVID-19 cases among residents. Overall, they conclude that the type of nursing services a community offers matters for protecting residents from COVID-19 (Larson & Carroll, 2020). This research translates into the importance of an ALC's licensure given that it impacts the services the community is allowed to provide.

Another important structure characteristic that can be associated with challenges to quality of care specific to COVID-19 is resident case-mix, which is closely related to licensure type in Florida. In ALCs that hold an LMH license, residents are more likely to be racially

diverse (Street et al., 2009), and ALCs with higher proportions of racial/ethnic minorities had more COVID-19 cases (Temkin-Greener et al., 2020). This suggests that ALCs with an LMH license may have experienced greater challenges with positive cases among residents. However, ALCs with an LMH license have additional staff training requirements because they serve residents who have mental illnesses (e.g., schizophrenia, bi-polar disorder, anxiety disorder) and are more likely to have behavioral impairments (Carder et al., 2015). This requirement of additional training may have acted as further support for staff and their knowledge to meet residents' needs during the COVID-19 crisis and practice infection control.

Another structure characteristic that falls under resident case-mix is whether an ALC provides care for residents with Alzheimer's disease and related disorders (ADRD). In a study examining COVID-19 infection control practices within ALCs across seven states, Zimmerman and colleagues (2022b) found that dementia-specific ALCs had more favorable staffing ratios compared to other ALCs. Even with this additional staffing, ALCs that provide care for residents with ADRD experienced significant difficulty with infection control (Zimmerman et al., 2022b). Whether residents with ADRD are a part of an ALC's resident case-mix may speak to the challenges faced during COVID-19. Therefore, the structure characteristic of resident case-mix is important to consider in the investigation of the impact of COVID-19.

In regard to challenges with staffing levels, which is a key structure characteristic associated with quality of care, many ALCs during the COVID-19 pandemic experienced a lack of essential personnel needed to provide quality care due to visitation restrictions. ALCs may not have had the number of staff that nursing homes (NHs) had to replace this need created by restricted visits (Dobbs et al., 2020). Approximately 80% of LTC communities did not meet their nurse staffing requirement during the beginning of the pandemic, and facilities with inadequate

staffing had two times more positive COVID-19 cases among residents compared to communities that met staffing requirements (Harrington et al., 2020). The ability to meet these requirements was a crucial aspect of managing the pandemic throughout LTC settings. Without the appropriate staff, facilities may be unable to meet the requirements of infection control, even if there is a risk of monetary consequences (Xu, Intrator, & Bowblis, 2020).

A major process characteristic challenge within ALCs was social distancing, which included restriction of family visits to reduce the potential spread of the virus. The fact that COVID-19 is highly contagious with a long incubation period for infected people who show no symptoms (Estabrooks et al., 2020) posed a great threat for a setting that relies on human interaction to provide quality care. With family members as integral parts of residents' "convoys of care", or the network of people who provide care to a resident (Kemp et al., 2013), lack of families' presence has been deemed unhealthy with negative consequences for residents, families, and staff (Jackson & Gaugler, 2016; Stall et al., 2020; Kemp, 2021; Kemp et al., 2013). Recognition of family members as more than visitors and compensation for their absence is essential to quality of care within LTC communities (Kemp, 2021). Along with the prohibition of family visitation, there were restrictions to some third-party providers. Within assisted living (AL), there was an increased risk of infection due to the reliance on third-party providers and home health care visits to provide needed services (Dobbs, Peterson, & Hyer, 2020). The need to meet federal guidelines to prevent the increased spread of COVID-19 then created this challenge of reduced access to essential workers in the AL setting.

A process characteristic central to quality is staff absence. During the COVID-19 pandemic, staff absence presented a significant threat to the overall management of resident care for LTC. Difficulty or inability to meet staffing requirements may have placed more of a burden

on the staff, who may have had their own concerns or anxiety about COVID-19. In the early days of the pandemic, some staff did not know, or they misunderstood, how to control and prevent the spread of the virus (Estabrooks et al., 2020). Many staff members were not able to work for various reasons, such as the need to isolate due to experiencing symptoms or living with someone who had symptoms, the need to stay home with children when schools closed, or general fear and concern about contracting the virus themselves (Dobbs et al., 2020; Estabrooks et al., 2020; Grabowski & Mor, 2020; Havaei et al., 2021).

Potential fear or concern about the virus speaks to staff's attitudes about the pandemic, another process characteristic. Staff attitudes may also have impacted staff absence. Rehsfeldt and Arman's (2016) model for LTC following disasters emphasizes the significance of attitudes to heal from disasters and the need for human love, care, and tolerance to relieve suffering. With pressure from various places (residents' families, staff's own families, state and federal government officials), the ability to maintain positive attitudes and provide quality care became more and more difficult for direct care staff and leadership during the pandemic. Dobbs and colleagues (2020) explain the fear among AL administrators related to these additional challenges and pressures on staff. If workers weigh the benefits of caring for this highly vulnerable population and decide the risks are not worth the rewards, administrators will experience even more of a shortage in staff (Dobbs et al., 2020). In other words, the attitudes staff have about the benefits versus risks of working within ALCs during COVID-19 may have impacted staff absence and an ALC's ability to meet staffing requirements. These challenges with staffing are crucial in a community's ability to provide and maintain high quality of care.

Purpose and Conceptual Framework

The purpose of this study is to determine the association between the structure and process characteristics of an ALC and the process outcome of staff absence from work. The main theoretical framework to undergird this study is Donabedian's (1985) Structure-Process-Outcome (SPO) model. In this model, Donabedian (1985) posits that quality (an outcome) is impacted by structure and process characteristics within an organization. Structure characteristics influence process characteristics that then influence outcomes. Process outcomes (i.e., the investigated dependent variable of staff absence from work) are outcomes specific to process characteristics that can impact quality of care. Given the various definitions of quality across different healthcare settings, quality indicators, such as structure and process characteristics, are more prevalent than the use of quality measures (Castle & Ferguson, 2010). This study investigates structure and process characteristics to determine their impact on a process outcome: ALC staff absence from work. This is important to enhance how we understand staff absence to further comprehend the factors that can influence the quality of care. Figure 2.1 represents the study variables in relation to the SPO model.

Research Question

1. How do structure and process characteristics of assisted living communities during COVID-19 affect the process outcome of assisted living staff absence from work?

Hypotheses

1. Structure characteristics, including county-level COVID-19 positivity rate, facility size, profit status, license type, resident case-mix, corporate chain membership, and staffing requirements of certified nursing assistants and aides, will be associated with staff absence from work.

2. Process characteristics, including staffing challenges, consistent staffing, leadership anxiety, and staff anxiety, will be associated with staff absence from work.

Method

Sample and Data Collection

Participants in this study derived from a COVID-19 supplemental grant of a larger study titled Strategic Approach to Facilitating Evacuation by Health Assessment of Vulnerable Elderly in Nursing Homes II (SAFEHAVEN II) funded by the National Institute on Aging. Researchers investigated the experiences of LTC communities (Skilled Nursing Facilities and ALCs) during the COVID-19 pandemic. An online Qualtrics survey was disseminated to LTC administrators through professional membership organizations in the state of Florida (e.g., Florida Health Care Association, Florida Assisted Living Association) from October of 2020 to March 2021. Survey questions were related to the impact of COVID-19 on their facilities. Participants were compensated $20 for their participation. Of the larger project (n = 270), this study focuses on administrators of ALCs (n = 182). Out of the 182 ALC administrators or administrative staff who responded to the survey, we have full data for 129 ALCs.

Measures

Measures for this study align with Donabedian's (1985) SPO model. Table 2.1 and the following sections describe each variable and how it was measured.

Structure Characteristics

County-Level COVID-19 Positivity Rate. A county's positivity rate refers to the percentage of positive COVID-19 cases out of all tests performed within a county (Dowdy & D'Souza, 2020). We chose to average the positivity rates of the seven days prior to an administrator's completion of the survey to capture the prevalence of COVID-19 right before

their participation. Data on county positivity rates were collected from the Florida Department of Health (FDOH) archive of COVID-19 case monitoring by county (FDOH, 2021). From the index, the report used to gather data for each ALC was chosen based on the date an ALC completed the survey. Given the time it took to create the reports, each report document includes data up until two days prior to the date the report was released. For example, if a survey was completed on October 28th, 2020, we chose the report file published on October 29th titled "county_report_20201029." We then navigated to each ALC's county data and gathered data for the seven days prior to the survey completion date (October 21st – 27th) to calculate the average county positivity rate. The 129 ALCs in the sample were from 37 counties in Florida.

Facility Size. Facility size was gathered based on participants' reported number of beds in their community. Participants were asked, "Please state the number of licensed beds in your facility or AL community". We collapsed these numbers into two categories: small ALCs (<25 beds) and large ALCs (≥25 beds).

Profit Status. Profit status was obtained through the Agency for Health Care Administration (AHCA) website using their "Find a Facility" feature. We created a dichotomous variable where 1 = for-profit and 0 = not-for-profit.

License Type. A facility's license type was also obtained through the AHCA website. This category includes three dichotomous variables – "**ECC or LNS**": 1 = yes and 0 = no; "**LMH**": 1 = yes and 0 = no; "**Standard only**": 1 = yes and 0 = no. The variables "ECC or LNS" and "LMH" were included in analyses, leaving "Standard only" as the reference group for the license types.

Resident Case-Mix. Resident case-mix was determined by whether the facility offers memory care services. This information was gathered from the AHCA website. We created a

dichotomous variable where 1 = offers memory care services and 0 = does not offer memory care services.

Corporate Chain Membership. Whether an ALC was part of a chain was obtained through the Florida Department of State, Division of Corporations website (Division of Corporations, n.d.). If the owners and/or management company listed on the AHCA website for an ALC were listed as corporate officers or agent of another ALC on the Division of Corporations website, the ALC was considered a chain (1 = yes). If the owners were not associated with other ALCs, they were not considered to have chain membership (0 = no).

Certified Nursing Assistant (CNA)/Aide Staffing Requirements. The survey prompted participants, "Please rate the ability of your facility or AL community to meet staffing requirements during COVID-19 emergency in each of the following categories:" Participants indicated "1 -Inadequate", "2 - Somewhat inadequate", "3 - Neither adequate nor inadequate", "4 - Somewhat adequate", or "5 - Adequate" for each category. Only "**CNA/Aid**" is included in this study because some ALCs are not required to have nursing staff depending on their license type.

Process Characteristics

Staffing Challenges. This category includes three variables: **Hiring/replacing new staff**, **Staff being sent home to comply with precautions/infection**, and **Paying staff for time off due to COVID-19 (for self or someone in their family)**. Participants were prompted, "Please rate each of the following challenges with direct care staff:" and indicated "1 - Extreme", "2 - High", "3 - Moderate", "4 - A little", or "5 - None". Responses were reverse coded where a higher number indicates more challenges (5= "Extreme" … 1= "None").

Consistent Staffing. A community's ability to use consistent staff assignments was obtained through the question, "To what extent has your facility or AL community been able to

use consistent assignment of staff, such that the same staff deal with the same cohorts of residents?" Participants indicated, "1 - Not at all", "2 - Partially", or "3 – Extensively."

Leadership Anxiety and Staff Anxiety. Anxiety levels for both the leadership and staff were obtained through the question, "To the best of your ability, please rate the level of anxiety you have observed for each group listed below:" with responses including "Leadership" and "Staff". Participants indicated "1 - Extreme", "2 - High", "3 - Moderate", "4 - A little", or "5 - None." Responses were reverse coded where a higher number indicates a greater level of anxiety (5= "Extreme" … 1= "None").

Process Outcome

Staff Absence from Work. Staff absence from, or not reporting for work was created from three variables related to challenges a community experienced with direct care staff. Participants were prompted, "Please rate each of the following challenges with direct care staff:" with choices including "Staff not reporting because of fear of infection", "Staff not reporting because of sickness", and "Staff not reporting because of childcare issues or other family responsibilities." Participants indicated "1 - Extreme", "2 - High", "3 - Moderate", "4 - A little", or "5 - None". Responses were reverse coded where a higher number indicates more challenges (5= "Extreme" … 1= "None"). We then indexed the responses to create one variable named "staff absence from work." Participants' responses to each variable on the 1-5 scale were added together to create a summative index of staff absence. Therefore, this variable ranges from 3 to 15 and is treated as a continuous variable where a higher score indicates greater challenge with staff absence from work.

Analyses

Descriptive statistics and bivariate correlations of the study variables were generated using SPSS 28. To examine structure characteristics (COVID-19 county positivity rate, ALC size, profit-status, license type, memory care services, chain membership, and adequate staffing of CNAs/Aides) and process characteristics (staffing challenges, consistent staff assignment, leadership anxiety, and staff anxiety) of ALCs that are associated with a process outcome (staff absence from work) during COVID-19, hierarchical regression was used to infer the relationship between the predictor variables and staff absence from work. Model fit was assessed using the R-square statistic.

Results

A total of 129 administrators were included in the current study. The average COVID-19 positivity rate based on a sample of 37 counties among the 129 ALCs was 5.62% (SD = 1.93%). The majority of participating ALCs have 25 or more beds (56.6%), are for profit (84.5%), hold a standard license only (65.1%), and are part of a chain membership (62%). Memory care services are offered in 38% of the communities, and 28.7% hold ECC or LNS licenses while roughly 10% hold an LMH license. Descriptions of the ALC characteristics can be found in Table 2.2.

Bivariate correlations using Pearson's correlation (Table 2.3) show no multicollinearity among structure and process characteristics and the process outcome. Staff absence from work was significantly correlated with COVID-19 county positivity rate, the provision of memory care services, chain membership, greater staffing challenges (i.e., hiring/replacing new staff, staff being sent home due to COVID-19, and paying staff for time off due to COVID-19), and greater leadership and staff anxiety. Staff absence from work was inversely correlated with LMH license and adequate staffing of CNAs/Aides (higher scores on staff absence from work was

significantly correlated with not having an LMH license and less adequacy meeting CNA/Aide staffing requirements).

Table 2.4 presents the results of the hierarchical regression. In Model 1, structure characteristics of ALCs accounted for 23% of the variance ($p < .001$). The structure variables included COVID-19 county positivity rate, ALC size, profit-status, license type, memory care services, chain membership, and adequate staffing of CNAs/Aides. In this model, COVID-19 positivity rate ($\beta = .273$, $p < .05$), memory care services ($\beta = 1.237$, $p < .05$), chain membership ($\beta = 1.091$, $p < .05$), and adequate staffing of CNAs/Aides ($\beta = -.674$, $p < .001$) significantly contributed to the variance. Higher COVID-19 county positivity rates, provision of memory care services, being part of a chain, and less adequacy meeting CNA/Aide staffing requirements were associated with more staff absence from work.

The addition of process characteristics of ALCs in Model 2 accounted for a significant increase in explained variance ($\Delta R^2 = .300$, $p < .001$), making the second model account for a total of 53% of the variance. The additional process variables in Model 2 included staffing challenges (i.e., hiring/replacing new staff, staff sent home due to COVID-19, and paying staff for time off due to COVID-19), consistent staff assignment, leadership anxiety, and staff anxiety. Memory care services ($\beta = 1.132$, $p < .05$), challenge with staff sent home due to COVID-19 ($\beta = .830$, $p < .001$), challenge with paying staff time off due to COVID-19 ($\beta = .406$, $p < .05$), and staff anxiety ($\beta = .590$, $p < .05$) were significant predictors of staff absence from work in this model. Provision of memory care services, greater challenge with staff sent home due to COVID-19 infection or precaution, greater challenge paying staff for time off due to COVID-19, and greater staff anxiety were associated with higher likelihood of staff absence from work.

Discussion

We investigated the association between structure and process characteristics of ALCs and the process outcome of staff absence from work. Structure characteristics included COVID-19 county positivity rate, facility size, profit status, license type, resident case-mix, corporate chain membership, and CNA/Aide staffing requirements. Process characteristics included staffing challenges, consistent staffing, leadership anxiety, and staff anxiety. We found that higher COVID-19 county positivity rate, provision of memory care services, chain membership, and a less adequate ability to maintain staffing of CNAs and aides were significantly associated with a higher score on the outcome of staff absence from work. In Model 2, more variance in the outcome was explained (R^2 = 53%) through the significance of the structure predictor of memory care services and process predictors of sending staff home to comply with COVID-19 precautions, paying staff for time off due to COVID-19, and greater staff anxiety. Overall, regardless of ALC structure characteristics other than the provision of memory care services, challenges with sending staff home due to COVID-19 and paying staff time off due to COVID-19, as well as staff anxiety, significantly predicted the outcome of staff absence from work.

Model 1: Structure Characteristics

Our sample of 129 ALCs represented 37 counties in Florida. To capture the prevalence of COVID-19 right before an administrator participated in the survey, we calculated the average positivity rate for seven days prior to their survey completion date. We found that higher positivity rates predicted more staff absence from work. If a county experienced higher rates, staff may have been more likely to be exposed to COVID-19 and, therefore, needed to miss work due to illness or exposure precautions. Staff absence was a common precaution to prevent the spread of the virus to residents. A systematic review of factors associated with COVID-19

outcomes in nursing homes (NHs) and ALCs found that facilities in areas with higher prevalence of COVID-19 predicted more cases and deaths within the facilities (Konetzka et al., 2021). This may have largely been due to staff who brought the virus to the facility from the community. Thus, in counties with higher positivity rates, staff absence may have been more encouraged as a precaution or needed due to illness. This was especially the case with more contract nurses who came in to ALCs to provide care. They may have been more likely to spread infection from more contact with ALC residents in several care settings for which they provided care.

Even though ALCs that offer memory care services provide additional training for staff (Carder et al., 2015), and dementia-specific ALCs were found to have more favorable staffing ratios compared to other ALCs during COVID-19 (Zimmerman et al., 2022b), we found that offering memory care services significantly predicted staff absence from work. Our results are similar to other research such as Zimmerman and colleagues (2022b) which found that even with more favorable staffing ratios, ALCs that provide care for residents with dementia experienced significant difficulty with infection control. Residents with ADRD had a more difficult time understanding the purpose of certain infection control practices, such as wearing masks and physical distancing. This may have posed an additional conflict for staff in mitigating the spread of infection with low resident adherence to infection control practices in ALCs that offer memory care services. The spread of the virus was more likely to occur without following proper protocols, and staff may have been more likely to get sick and miss work. Therefore, the provision of memory care services may predict staff absence through difficulty in following infection control protocols within their ALC.

Previous research is inconsistent on how ownership structure of a LTC facility impacts COVID-19 outcomes (Konetzka et al., 2021). In the current study, when only considering

structure characteristics of an ALC, being part of a chain was significantly associated with more staff absence from work. This study contributes to understanding the association of chain membership in ALCs and how it may influence staff outcomes (e.g., absence from work). Research on the impact of chain status has mostly been in NHs. Abrams and colleagues (2020) found that NHs with no chain affiliation had an increased probability of having COVID-19 cases. Earlier research found that NH chains had lower staffing, poor resident outcomes, and more deficiencies (Kim, Harrington, & Greene 2009a; Kim et al. 2009b, Harrington et al., 2012). Low staffing may be a factor in difficulty managing the pandemic and residents' exposure to COVID-19. Facilities with higher staffing levels have the potential to better control the spread of infection (Li et al., 2020), and having better infection control capabilities may reduce the need for staff absence due to COVID-19-reated reasons. Therefore, chain membership may influence staff absence through a community's staffing levels. Dobbs and colleagues (2021) discuss this concept in their report on NHs and ALCs during disasters, including COVID-19, and explain that large ALCs are likely to have a chain membership and, therefore, have access to more resources and support more-so than smaller or independent ALCs. This suggests that chain affiliated ALCs may have benefited from more access to resources to maintain staffing levels and manage the spread of the virus. However, Braun and colleagues (2020) found that Private Equity-owned NHs were more likely to be part of a chain than other facilities, and they performed comparably on staffing levels during COVID-19. This may suggest that being part of a chian does not differ in terms of staffing levels compared to other communities. As the varying results of these studies suggest, there is a lack of consistent evidence on the impact of ownership structure during COVID-19. This aligns with our results and how chain membership is no longer significant after accounting for process characteristics of an ALC.

When not considering process characteristics of an ALC, inadequate staffing of CNAs and aids significantly predicted greater challenge of staff absence. The less adequate an administrator indicated their ability was to meet staffing requirements of CNAs and aides, the higher they rated staff absence from work. This finding makes sense given that an inability to meet staffing requirements indicates that staff are not at work. This then poses the question of why a community experienced challenge with inadequate staffing. Our findings from Model 2 with the inclusion of process characteristics shed light on this question.

Model 2: Structure + Process Characteristics

Our results show that greater challenge with staff being sent home to comply with COVID-19 precautions, greater challenge paying staff for time off due to COVID-19, and greater staff anxiety were associated with more staff absence from work. In this second model, previously significant structure characteristics became insignificant predictors of staff absence except for memory care services. This indicates that the significant associations between the process predictors with staff absence from work suppressed the significance of the relationships between COVID-19 county positivity rates, chain membership, and adequate staffing of CNAs/Aides with how administrators rated staff absence from work.

Our finding that COVID-19 county positivity rate is no longer a significant predictor of staff absence when considering process predictors suggests that process characteristics may explain why a higher county positivity rate predicted staff absence. While our study does not include the process characteristic of infection control practices, other included process characteristics of challenges with sending staff home to comply with COVID-19 precautions and paying staff for time off due to COVID-19 speak to an ALC's infection control protocol. Our findings then suggest that how an ALC practiced infection control and managed the spread of the

virus may explain the significant relationship between positivity rate and staff absence before the inclusion of process characteristics in Model 2.

Bivariate correlations revealed a significant correlation between adequate staffing of CNAs/Aides and both staff being sent home to comply with COVID-19 precautions ($p < .01$) and difficulty paying staff for time off due to COVID-19 ($p < .01$). These correlations, along with adequate staffing no longer being a significant predictor in the second model, may indicate that staff being sent home due to COVID-19 and difficulty paying staff for time off due to COVID-19 explain why a community experienced inadequate staffing. Therefore, introducing staff being sent home and paying staff for time off into Model 2 suppressed the significance of inadequate staffing from Model 1.

While challenge with staff being sent home was significantly correlated with staff absence from work, bivariate correlations did not indicate multicollinearity between the two (Pearson correlation coefficient = .612). These two variables are distinct from each other in that the predictor process characteristic indicates challenge with having to send staff home versus the dependent process outcome of staff absence from work. Our results of staff being sent home as a significant predictor of staff absence, as well as challenge with paying staff for time off due to COVID-19, speak to the importance of infection control. Better management of the pandemic and infection control within an ALC can reduce the need to send staff home to comply with COVID-19 precautions and to pay them for their time off, which would then reduce staff absence. Future research should investigate the impact infection control policies have on aspects of staffing with ALCs during the pandemic.

A community's ability to control the spread of COVID-19 may also play a role in staff anxiety, which we found to predict a higher rating by administrators on staff absence from work.

The pandemic instigated a sense of fear and anxiety for staff, and many staff had concerns for themselves and their families in contracting COVID-19 (Havaei et al., 2020; Grabowski & Mor, 2020). Some staff may have also had anxiety around potential infection to others and additional outbreaks of COVID-19 in the ALC. Havaei and colleagues (2020) found this to be the biggest staff concern – causing an outbreak at work or bringing the virus home with them. This aligns with our results related to staff anxiety and staff absence from work. As previously described, our variable for staff absence is comprised of three separate variables, or reasons why staff did not report for work: fear of infection, being sick, and experiencing childcare issues or other family responsibilities. The anxiety that staff felt made them more likely to not report for work due to those reasons.

Havaei and researchers (2020) also found that certain infection control practices helped relieve staff anxiety. Specifically, having a COVID-19 screening process at a facility's entry point, such as taking temperatures and asking symptom-related questions, provided a sense of relief (Havaei et al., 2020). This further highlights the importance of pandemic management and infection control policies in our results. Strengthening our knowledge on infection control policies can also apply beyond the pandemic and inform comprehensive emergency management plans (CEMPs) required within ALCs. Having more specific plans in place to address infection control and management could help reduce the need to send staff home due to infection and could also reduce staff anxiety. Given the results of this study, those effects would decrease challenge with staff absence from work as well.

Strengths and Limitations

One strength of this study is the inclusion of COVID-19 average positivity rate of the county for each ALC seven days prior to survey completion. This variable, along with facility

size, are essential to include given that the county prevalence of the virus and larger facility size were the largest and most consistent predictors of COVID-19 cases and deaths in NHs and ALCs (Konetzka et al. ,2021). While our study does not focus on resident outcomes of COVID-19 cases and deaths, county positivity rate and facility size are still important to include when investigating process outcomes that can impact resident outcomes. A limitation is not using the positivity rate within each ALC.

While this study includes administrators of ALCs who were on the front lines of dealing with the pandemic in their communities, we do not have the perspectives of the direct care staff themselves. Including staff perspectives would provide further insight into how COVID-19 impacted them and their work environment. Additionally, this study is cross-sectional and does not capture the impact of COVID-19 on staffing over time. Surveys were collected between October of 2020 to March 2021. Some ALCs may not have had vaccines administered yet, and this may have impacted their responses. Longitudinal investigation of the pandemic's impact within ALCs could provide rich data on more long-term effects and could inform policies on disaster preparedness and infection control. Future research should also consider differences between ALCs that do not provide memory care services, ALCs that offer those services in addition to non-memory care services, and ALCs that provide memory care only. This information and the inclusion of the percentage of residents with ADRD for each ALC would further explain the significance of resident case-mix and better inform policies and procedures for working specifically with residents with dementia.

Employing a qualitative approach to investigate COVID-19 and AL staffing would provide further understanding of these impacts from the voices of those who experienced it. Such an approach would provide valuable data on themes most relevant to this topic coming directly

from administrators and staff. The inclusion of questions on infection control would also benefit current literature and discussions on COVID-19 and staffing. While our results point to the significance of infection control procedures, we did not investigate this variable directly. Future researchers should consider the inclusion of infection control practices to better inform results related to staffing.

Conclusion

Overall, we found that regardless of the structure of an ALC other than the provision of memory care services, processes of care including challenges with sending staff home due to COVID-19, paying staff for time off due to COVID-19, and staff anxiety were significantly associated with staff absence from work based on the perspectives of AL administrators. Expanding our knowledge on these characteristics within ALCs could help inform policies and procedures that will ultimately improve AL staffing and resident outcomes. To further understand these variables, future research can shed light on the role and impact of infection control and management of the pandemic within AL.

Figure and Tables

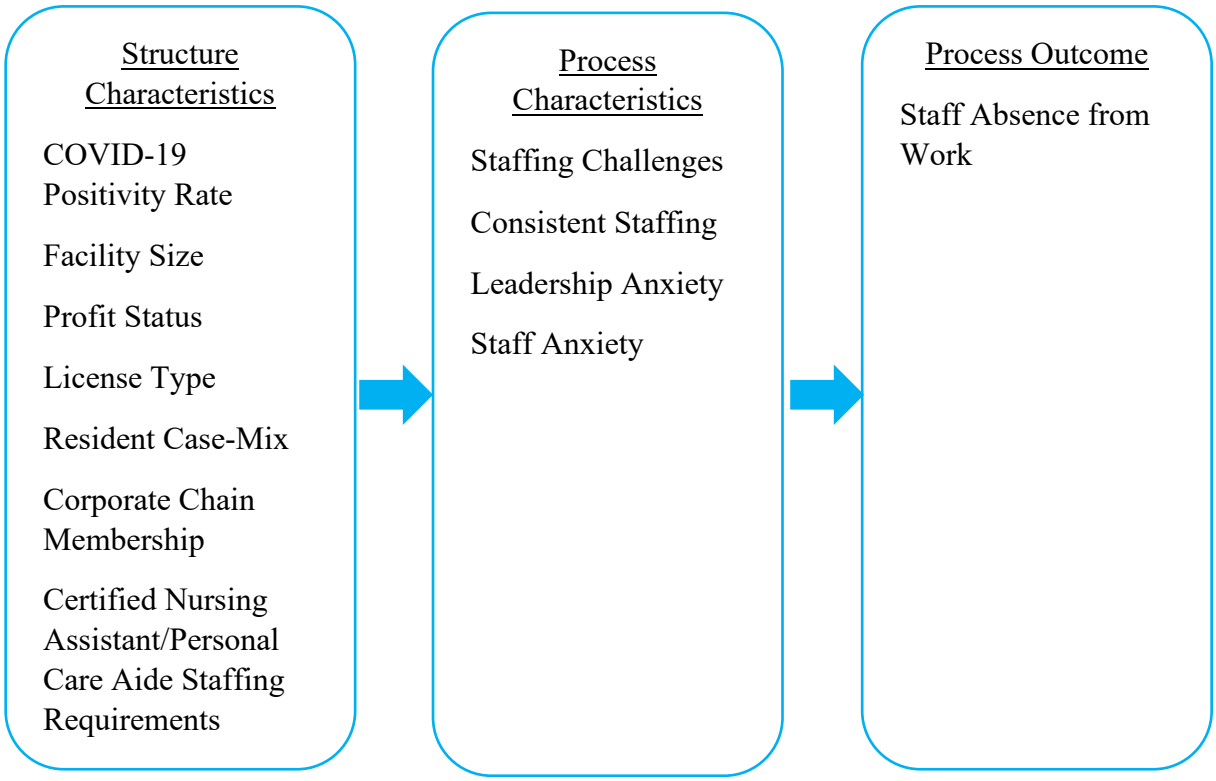

Figure 2.1. Structure-Process-Outcome Model to Predict Assisted Living Staff Absence from Work

Table 2.1. Description of Study Variables

Variables	Variable Type	Description
Structure Characteristics		
COVID-19 County Positivity Rate	continuous	An ALC's county average COVID-19 positivity rate for seven days prior to survey completion was calculated using FDOH data.
Facility size	categorical dichotomous	The number of licensed beds a community has: small ALCs (<25 beds) and large ALCs (≥25 beds).
Profit Status	dichotomous	Obtained from the AHCA website. Whether a community is for-profit: yes (1) or no (0).

Table 2.1. (Continued). Description of Study Variables

Variables	Variable Type	Description
License Type ECC or LNS LMH Standard Only (reference)	dichotomous	Obtained from the AHCA website. The type of license a community holds: yes (1) or no (0).
Resident Case-Mix	dichotomous	Obtained from the AHCA website. Whether the community offer memory care services: yes (1) or no (0).
Corporate Chain Membership	dichotomous	Obtained from the Florida Department of State, Division of Corporations website. Whether the community is a part of a chain: yes (1) or no (0).
CNAs/Aides Staffing Requirements	interval scale	A community's ability to meet staffing requirements for CNA/Aides: "1 - Inadequate", "2 - Somewhat inadequate", "3 - Neither adequate nor inadequate", "4 - Somewhat adequate", or "5 – Adequate."
Process Characteristics		
Staffing Challenges Hiring/Replacing New Staff Staff Sent Home to Comply with Precautions/Infection Paying Staff for Time Off Due to COVID-19	interval scale	How much of a challenge a community experienced with each of the three variables: "1 – None", "2 – A little", "3 – Moderate", "4 – High", "5 – Extreme."
Consistent Staffing	interval scale	The extent to which a community was able to use consistent assignment of staff: "1 - Not at all", "2 - Partially", or "3 – Extensively."
Anxiety Leadership Staff	interval scale	The level of anxiety an administrator observed for each variable: "1 – None", "2 – A little", "3 – Moderate", "4 – High", "5 – Extreme."

Table 2.1. (Continued). Description of Study Variables

Variables	Variable Type	Description
Process Outcome		
Staff Absence from Work	continuous	Summative index of responses to the level of three challenges with staff absence: (a) Staff not reporting because of fear of infection, (b) Staff not reporting because of sickness, and (c) Staff not reporting because of childcare issues or other family responsibilities. Levels for each challenge were indicated as "1 – None", "2 – A little", "3 – Moderate", "4 – High", "5 – Extreme." Scores from the summative index range from 3 – 15, and the variable is analyzed as continuous where a higher score indicates greater challenge with staff absence from work.

Note. COVID-19 = Coronavirus Disease of 2019; FDOH = Florida Department of Health; ALC = Assisted Living Community; AHCA = Agency for Health Care Administration; ECC = Extended Congregate Care; LNS = Limited Nursing Services; LMH = Limited Mental Health; CNA = Certified Nursing Assistant.

Table 2.2. Assisted Living Community Characteristics (N = 129)

	ALC M (SD) or n (%)
Structure Characteristics	
COVID-19 County Positivity Rate (%) (range: 1.59% – 20.22%)	5.62 (1.93)
Large Facility (≥25 beds)	73 (56.6%)
For Profit	109 (84.5%)
License Type	
ECC or LNS	37 (28.7%)
LMH	13 (10.1%)
Standard Only	84 (65.1%)
Memory Care Services	49 (38%)
Corporate Chain Membership	80 (62%)
CNAs/Aides Staffing Requirements (range: 1 – 5)	4.03 (1.34)

Table 2.2. (Continued). Assisted Living Community Characteristics (*N* = 129)

	ALC *M* (SD) or *n* (%)
Process Characteristics	
Staffing Challenges (range: 1 – 5)	
Hiring/Replacing New Staff	3.32 (1.32)
Staff Sent Home to Comply with Precautions/Infection	2.59 (1.25)
Paying Staff for Time Off Due to COVID-19	2.30 (1.32)
Consistent staffing (range: 1 – 5)	2.46 (0.69)
Anxiety (range: 1 – 5)	
Leadership	3.16 (1.34)
Staff	3.29 (1.05)
Process Outcome	
Staff Absence from Work (range: 3 – 15)	6.05 (2.89)

Note. There are 37 counties represented among the 129 ALCs. ALC = Assisted Living Community; COVID-19 = Coronavirus Disease 2019; ECC = Extended Congregate Care; LNS = Limited Nursing Services; LMH = Limited Mental Health; CNA = Certified Nursing Assistant.

Table 2.3. Correlations Between Structure, Process, and Process Outcome Study Variables ($N = 129$)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Structure Characteristics														
1. COVID-19 Positivity Rate														
2. Large ALC	.133													
3. For Profit	.083	-.073												
4. ECC or LNS	.203*	.348**	.035											
5. LMH	-.215*	-.174*	.072	.072										
6. Memory Care Services	.088	.395**	.115	.281**	-.156									
7. Chain Membership	-.108	.314**	-.070	.037	-.216*	.218*								
8. Adequate Staffing of CNAs/Aides	.031	.044	.090	-.040	-.085	.018	.054							
Process Characteristics														
9. Challenge – Hiring/replacing new staff	-.014	-.002	-.206*	-.062	-.139	.042	.007	-.477**						
10. Challenge – Staff sent home due to COVID-19	.082	.088	.048	-.025	-.117	.040	.216*	-.318**	.447**					
11. Challenge – Pay time off due to COVID-19	.105	.047	-.065	-.055	-.156	.063	.193*	-.334**	.385**	.574**				
12. Consistent Staff Assignment	.000	-.101	-.090	-.048	-.036	.061	.033	.257**	-.162	-.180*	-.059			
13. Leadership Anxiety	-.017	.008	-.191*	-.009	-.194*	-.151	.151	-.273**	.259**	.262**	.209*	-.112		
14. Staff Anxiety	.144	.076	-.026	.056	-.141	.060	.123	-.240**	.351**	.364**	.345**	.023	.610**	
Process Outcome														
15. Staff Absence	.181*	.076	.068	.006	-.203*	.240**	.192*	-.275**	.418**	.612**	.534**	-.103	.186*	.423**

Note. COVID-19 = Coronavirus Disease 2019; ALC = Assisted Living Community; ECC = Extended Congregate Care; LNS = Limited Nursing Services; LMH = Limited Mental Health; CNA = Certified Nursing Assistant.
*$p<.05$ **$p<.01$

Table 2.4. Hierarchical Regression Analysis of the Association Between Structure and Process Characteristics and Staff Absence from Work (N = 129)

	Model 1 β (SE)	Model 2 β (SE)
Structure Characteristics		
COVID-19 Positivity Rate	.273 (.129)*	.134 (.106)
Large ALC	-.369 (.556)	-.501 (.454)
For Profit	.614 (.657)	.349 (.563)
License Type		
ECC or LNS	-.511 (.572)	-.159 (.463)
LMH	-1.235 (.834)	-.628 (.697)
Memory Care Services	1.237 (.539)*	1.132 (.451)*
Chain Membership	1.091 (.522)*	.325 (.440)
Adequate Staffing of CNAs/Aides	-.674 (.175)***	-.061 (.172)
Process Characteristics		
Staffing Challenges		
Hiring/replacing new staff		.237 (.185)
Staff sent home due to COVID-19		.830 (.200)***
Paying staff for time off due to COVID-19		.406 (.183)*
Consistent Staff Assignment		-.171 (.296)
Leadership Anxiety		-.215 (.196)
Staff Anxiety		.590 (.253)*
p	<.001	<.001
R^2	.230	.530
ΔR^2		.300

Note. COVID-19 = Coronavirus Disease 2019; ALC = Assisted Living Community; ECC = Extended Congregate Care; LNS = Limited Nursing Services; LMH = Limited Mental Health; CNA = Certified Nursing Assistant.
*p<.05 **p<.01 ***p<.001

CHAPTER 3: ASSISTED LIVING ADMINISTRATORS' PERCEPTIONS OF THE COVID-19 EXPERIENCE

Background

Assisted living communities (ALCs) are an increasingly popular sector of long-term care (LTC). As of 2018, there were 31,400 assisted living (AL) and residential care communities with over 1.1 million licensed beds that served more than 918,000 residents (Sengupta et al., 2022). The rapid increase of ALCs and the number of older adults they serve also leads to the need for more staff to provide care to these residents. The ALC industry has a history of challenges with staffing, and the coronavirus disease of 2019 (COVID-19) exacerbated these issues. It is important to understand the perspectives of staff who work in ALCs to learn about the challenges during COVID-19 in order to better care for residents.

Many of the challenges with the pandemic related to ALC staff. This includes problems with staffing requirements, personal concerns of the staff/family obligations, and the maintenance of positive attitudes throughout the pandemic. The pandemic also worsened existing concerns, such as poor communication/lack of connection, the ability to have consistent staff, and high turnover rates. Poor communication and a lack of connection between staff and residents can make providing care to residents even more difficult and time consuming. Consistent staff can help improve the communication and connection with residents. However, with the high turnover rate in the LTC setting, more strain can be put on efforts to provide quality care. It can be exhausting for both the residents and direct care staff to constantly get to know new members of the staff and learn how to work best with them. The pandemic made

achievement of such connections even more difficult with infection control protocols, such as visitation restrictions, to manage the spread of the virus. This may have caused further strain on ALCs to maintain their staff and meet staffing requirements.

Leadership within an ALC can also impact the relationships formed among staff and the overall experiences of administrators and staff during the pandemic. Staff empowerment and engagement have been shown to foster positive work environments and relationships, staff stability, and the improvement of person-centered care (Berridge et al., 2018; Bowers & Nolet, 2011; Caspar et al., 2020a; Caspar et al. 2020b). The importance of staff empowerment gained momentum through the culture change movement (Bowers & Nolet, 2011), and the benefits continue to show. Due to limited literature on AL and staffing issues, we cite other LTC studies, such as those conducted in nursing homes (NHs). Empowerment in the NH setting included emphasis on quality improvement teams, group efforts to cover shifts, the choice of residents to care for, and recognition and rewards for additional training and education (Berridge et al., 2018). With high turnover in LTC, efforts to achieve greater staff satisfaction, stability, and less turnover are crucial, especially during COVID-19.

One aspect of empowerment is the use of intrinsic and extrinsic rewards for staff. Intrinsic rewards include autonomy at work, the meaning staff feel about their work, and aspects of support from their supervisor. Extrinsic rewards include wages, financial bonuses, incentives, and staff's workload. Both types of rewards have been found to be significant factors in NH certified nursing assistants' (CNA) meaning-making, job satisfaction, and intent to leave their positions (Gray et al., 2016; Decker, Harris-Kojetin, & Bercovitz, 2009; Wiener et al., 2009; Morgan, Dill, & Kalleberg, 2013). While both rewards are important, research highlights the particular benefit of extrinsic rewards or characteristics to help retain staff (Wiener et al., 2009;

Morgan et al., 2013). Kennedy and colleagues (2021) determined a higher likelihood of CNA retainment in NHs that practice a combination of staff empowerment in addition to high hourly wages. The practice of staff empowerment through both intrinsic and extrinsic rewards are strategies to provide staff with fair output and to achieve the needed goal of lower staff turnover and higher satisfaction.

Similar to Kennedy and colleagues' (2021) work, earlier research conducted by Berridge and colleagues (2018) concluded that greater opportunities for the empowerment of CNAs in NHs, such as the choice of residents to care for and receipt of rewards for additional training and education, were associated with longer retention of these staff members. McGilton and colleagues (2009) found that nurses in a leadership role identified the importance of empathy toward others' feelings and managing their own emotions to build strong and trusting relationships with their staff. Leaders must understand the experiences of direct care staff, be available to them, value them, and acknowledge their efforts and skills as ways to promote quality exchanges and provide support (McGilton et al., 2009). Staff connection and empowerment may be ways to foster positive and beneficial structures and job characteristics within LTC settings in general and specifically during COVID-19 where maintenance of staff was made even more crucial.

Given that leadership and management practices directly impact the quality of the relationships among staff (Corazzini et al., 2010), a LTC leader's practice of empowerment is a promising approach to the improvement of workforce issues. Research shown to improve the quality of care in NHs has found an association between worker empowerment from a LTC leader and increased resilience among the staff (Casper et al. 2020b). Resilience is a key characteristic to persevere through uncertain times of a pandemic. They also note the

consequences of disempowerment, such as poor perception of communication, respect, and appreciation for the efforts in one's work (Caspar et al., 2020b). Staff empowerment along with collaborative decision-making can in turn, improve person-centered care vis-à-vis a leader who creates a work environment that emphasizes positive, supportive, and inclusive team efforts (Caspar et al., 2020a).

An important aspect of support among direct care staff during COVID-19 was with their families. Research prior to the pandemic highlights that a key factor in employee support is a supervisor who is supportive of the balance between work and family (Almeida et al., 2016; Kossek et al., 2011; Lapierre & Allen, 2006). Family-supportive supervision involves empathy with an employee's desire for work-family balance and engaging in family-supportive behaviors, such as emotional and instrumental support, role-modeling behaviors, and creative work-family management (Hammer et al., 2011). The practice of family-supportive supervision by the administrators is an aspect of leadership influential in the development of strong relationships with workers. Family-supportive supervision has been found to be related to lower levels of work interference with family and better well-being (Kossek et al., 2011; Lapierre & Allen, 2006). Additionally, Almeida and colleagues (2016) found that the associations between work-to-family conflict, greater negative affect, and poorer cortisol regulation were mediated when supervisors offered support. This support specific to employees' work-family balance could then act as a protection to employee emotional well-being, burnout, and enhance their ability to manage the different demands in their lives.

Family-supportive supervision during the pandemic was even more crucial because of the difficulty LTC staff had managing concurrently their work and family roles. Many direct care staff felt a lack of knowledge or comprehension about the pandemic (Estabrooks et al., 2020) and

had their own family concerns at the time (Grabowski & Mor, 2020; Estabrooks et al., 2020). Uncertainties may have led to further work-family conflict and impacted a facility's ability to meet staffing requirements if direct care staff decided to leave their position. Leadership support and acknowledgement of family concerns would give staff the opportunity to be more confident in their ability to manage work-family balance and may prevent turnover and more strain on a facility. Such a leadership practice is crucial to maintain positive relationships with empathy toward staff experiences and emotions.

The National Center for Assisted Living (2014a) identifies guiding principles for leadership within ALCs. Of first importance is communication. ALC leaders need to be effective listeners who know what staff expect from them and who thoughtfully consider any recommendations from staff. This aspect of communication creates a workplace culture of quality exchanges. Second, leaders should also display trust and respect. Consistent display of honesty, empathy, and respect can go a long way. The third principle relates to mentoring. Successful mentoring can increase the skills and morale of staff along with the improvement of the workplace as a whole. Fourth, aspects of competence, expertise, and collaboration create a successful ALC leader. This does not mean that supervisors must know everything; rather, they need to trust and have confidence in their staff's abilities to provide quality care and get the job done well. Intrinsic rewards through recognition of outstanding workers and the offer of rewards for goal achievements shows the fifth principle of compassion and commitment to the workforce. The final guiding principle is accountability, where trust acts as the foundation of the community. The observance to these principles as the standard for supportive leadership within ALCs has the potential to significantly improve direct care staff experiences, even in the course of a disaster.

A key concept to consider with AL staff experiences, especially during the COVID-19 pandemic, is moral distress. According to the American Association of Critical-Care Nurses (n.d.), "Moral distress occurs when you know the ethically correct action to take but you are constrained from taking it" (para. 2). While moral distress is a serious problem among nurses and direct care staff, there is scant literature on this topic, especially within LTC. A recent scoping review of 15 articles worldwide in the primary care setting found that the main areas of focus in current research relate to ethical conflicts and episodes of moral distress, measures of moral distress, and coping strategies (Giannetta et al., 2021). They conclude that further research is essential to understand triggers of moral distress among nurses and how to prevent this dilemma (Giannetta et al., 2021).

Some research addresses moral distress through education and leadership interventions to build resiliency among staff (Baugham et al., 2021; Caspar, Le, & McGilton, 2017). Baughman and colleagues (2021) highlight ways in which COVID-19 caused moral distress to NH staff, such as through conflicting federal and state guidelines and watching residents experience physical and mental decline. To foster a sense of community and resilience among staff, researchers created an educational series about COVID-19 with weekly meetings over 16 weeks (Baughman et al., 2021). Baughman and researchers (2021) note that educational and networking sessions may be an effective strategy to support staff's moral resilience and combat moral distress. Prior to the pandemic, research approached moral distress through interventions designed to train leaders in LTC settings to engage in best leadership practices and guidelines. One such intervention is the Responsive Leadership Intervention (RLI) (Caspar, Le, & McGilton, 2017). With supportive and responsive leadership as a workforce factor that can reduce moral distress, especially in staff who care for residents with dementia (Spenceley,

Caspar, & Pijl, 2017), the RLI aims to improve responsive leadership practices and staff's perceptions of their ability to provide person-centered care (Caspar et al., 2017). This intervention was found to improve team leaders' provision of support, create better relationships with staff members, lower employee turnover, and lower number of conflicts (Caspar et al., 2017). This practice of supportive and responsive leadership is especially helpful in uncertain times, such as the pandemic, when more instances of moral distress arose, and moral resilience became even more paramount. Research is needed to further understand the impacts COVID-19 had on staff as well as how leadership was demonstrated.

Purpose of Study

The purpose of this study is to create an interpretation of ALC administrators' perceptions of the impact COVID-19 had on staff and staffing. We also aim to explore how respondents exhibited leadership with their staff. To tell a story of the experiences of staff during the pandemic as perceived by administrators, as well as how those administrators demonstrated leadership, will provide further meaning to the impact of COVID-19 within ALCs. These experiences may also inform suggestions or considerations for policymakers in regard to disaster preparedness and infection control protocols within the context of ALC staffing.

A Priori Questions

1. How do 26 assisted living administrators perceive the impact of the COVID-19 pandemic on staff and staffing within their communities?
2. How do their perceptions indicate attributes of leadership toward staff during the pandemic?

Method

Sample

Participants in this study derived from a COVID-19 supplemental grant of a larger study titled Strategic Approach to Facilitating Evacuation by Health Assessment of Vulnerable Elderly in Nursing Homes II (SAFEHAVEN II) funded by the National Institute on Aging. This supplemental grant includes the survey data used in Part 1 of this dissertation, as well as interview data. Participating administrators of LTC communicates (Skilled Nursing Facilities and ALCs) were asked on the survey if they would be willing to participate in an interview to provide further information about the impact of COVID-19 on their facility. The research team scheduled an interview with those who were willing to participate and who provided contact information. Interviews were conducted between April and November of 2021. This resulted in a sample of 43 participants. Sixteen participants represented Skilled Nursing Facilities, 26 represented ALCs, and one represented a Family Care Home. The current study focuses on the 26 respondents who represented ALCs.

Data Collection

Semi-structured interviews were conducted with each respondent via Zoom or phone. Each interview was approximately one hour, and respondents were encouraged to talk openly about various topics. The interview topics were COVID-19 policies and procedures as part of emergency preparedness planning, discharge and visitation policies, internal policies on psychological services available to residents and staff, staffing policies or changes due to COVID-19, and effects on residents. Example questions for each respective topic include “Have you had sufficient protective gowns? Masks, gloves?”, “Given the concerns, how did you/do you determine who you allow into the building?”, “Have you increased your

psychological/psychiatric resources within the building to compensate for the anxiety? If so, what have you done?", "What measures are you using to maintain staffing in light of COVID-19?", "Can you describe how COVID-19 has affected residents with dementia?" Each interview included a Ph.D.-trained facilitator and notetaker who has experience in disaster and LTC research. Interviews were audio-recorded with the permission of the respondents. A professional transcribing service then transcribed the recordings verbatim followed by team members' review of the transcripts.

Analysis

All interview transcriptions were uploaded into Atlas.ti 9 for coding. Line-by-line content analysis was employed to code each interview. The coding for all 43 interviews took place from July to November 2021 in three phases. The first phase included group coding of five transcripts. Codes were discussed, and the a priori codebook was adjusted accordingly. Paired team coding then took place in phase two for 20 transcripts. Each team member coded an interview alone and then met with their coding partner to reconcile. Any changes or additions to the codebook were discussed with the whole team before they were made. Phase three was comprised of single team member coding of the remaining interviews (18).

As the current study focuses on ALCs, those 26 interviews were separated from the other 17 and exported to their own Atlas.ti file for further analysis. While each interview included codes related to the topics stated above, this study focuses on codes related to staffing. These codes are "effect on staff", "staffing", and "staff – communication." We were also interested in the code "leadership" within the context of staff. All interview content with one or more of these codes was further analyzed using Braun and Clarke's (2006) guide to thematic analysis.

Through their explanation of how to conduct thematic analysis, Braun and Clarke (2006) leave room for researchers' flexibility in analysis and interpretation of data. These are key elements to create meaning and an interpretation of the data given that qualitative research is not meant to identify or reveal the 'truth' within the data (Braun & Clarke, 2019). Their approach to thematic analysis includes six phases that we followed for the current study. We first (1) familiarized ourselves with the data then (2) created initial codes and coded the interviews; next, (3) we searched for themes within the codes, (4) reviewed the themes we interpreted from the data, and (5) created clear definitions and names for those themes; finally (6), we chose quotes from the interviews that represent each theme and wrote the results (Braun & Clark 2006).

Results

A total of 26 respondents from ALCs were included in thematic analysis. The majority of respondents were female (69%), white (73%), and held the position of administrator or owner (92%). One respondent identified as the Regional Director of Operations, and another respondent held the position of Comptroller. Five respondents represented more than one ALC, which led to a total of 43 ALCs represented in this study. Table 3.1 indicates the represented ALC characteristics, and Table 3.2 outlines respondent characteristics. Throughout the results, respondents are referred to as "Respondent 1", "Respondent 2", and so on to protect their identities. The term "administrator" is also used to refer to all respondents.

Given the research questions and the purpose of this study, we created three overall themes from the interviews: Leadership Shown Toward Staff, COVID-19 Impact on Staff, and COVID-19 Impact on Staff Retention. Through the use of thematic analysis of all interviews, our interpretation of the data further generated subthemes for two of our three major themes. For the first theme, Leadership Shown Toward Staff, we created two subthemes: Support and

Communication. The second theme, COVID-19 Impact on Staff, consists of two subthemes: Additional Tasks and Staff Reactions. The subtheme of Additional Tasks is further broken down into two categories: Navigating Resident Engagement and Navigating Infection Control Practices. The second subtheme of Staff Reactions is also further broken into two categories: Emotional Reactions and Behavioral Reactions. We did not interpret any subthemes for our third overall theme, COVID-19 Impact on Staff Retention. Figure 1 represents the breakdown of these themes, and Table 3.3 provides example quotes for each theme by small ALC (<25 bed) and large ALC (25+ beds).

Theme 1: Leadership Shown Toward Staff

The first theme is leadership shown toward staff. We further interpreted two subthemes for this overall theme: 1) the support administrators provided to their staff and 2) the ways administrators communicated.

Subtheme 1: Support

Respondents spoke to various ways they strived to support their staff (e.g., intrinsic and extrinsic rewards). This support manifested through the attitudes of administrators' priority to protect their staff as well as through their actions to provide their staff with supplies, help in their personal lives, and recognize their incredible efforts. Respondent 1 (small ALC) explained how important it was to protect staff just as much as the residents:

> We had a pandemic and all of our residents' lives were at risks. . . But also, every worker's life was at risk. As an administrator, it wasn't just about protecting the residents, which was what those agencies were, protect the residents, protect the residents, and they spoke nothing about protecting our team . . . If my workers can't get

> in there, I personally can't do – execute all that I need to do single-handedly. Therefore, I needed to protect the wellbeing of those individuals.

Respondent 1 further explained that they supported staff by "giv[ing] them a crash course education on how disease spread." Respondent 1 also provided staff with "a bottle of Clorox to each of them." Other respondents provided staff with "toilet paper…and paper towels", and "milk, cereal, things like that" for their families.

Respondents discussed how they took care of staff in other ways as well. Respondent 2 (large ALC) explained, "I coordinated services and telehealth for them." Respondent 1 discussed how a member of their staff needed a ride to a doctor's appointment, so the administrator drove the staff member there.

Administrators also provided support in the way of intrinsic rewards with encouragement and recognition to their staff. Respondent 3 (large ALC) described how the ALC corporate offices showed appreciation toward their nurses, "…we've made a point of just celebrating with them…we'd put a care package together for all of our associates to make sure that their family was taken care of." Respondents also spoke to the impact staff encouragement had on staff retention. Respondent 4 (small ALC) explained:

> We did encouraging things like letters sent out to families recognizing hero of the week, and we would send that not to the individual. We'd send it to their family as an incentive to tell them, "Hey, they called you a hero." . . . little things like that really made a difference. It made them show up for work, it made them come in. It made them be there, so we've had no staffing issues the whole time.

Administrators also provided support through extrinsic rewards such as the offer of incentives. These incentives were to retain staff, hire new staff, and/or to get the COVID-19

vaccination. In an effort to support and protect staff, Respondent 5 (small ALC) described when asked about incentives:

> We've given COVID bonuses. We just gave, I think the sixth one during the whole time, and they range between $100 and $200 a time…The staff really know that I love them. I care about them, I care about their families, and I care about their safety and their health.

Respondent 5 went on to say, “They want to be safe. They have to work, but they want to be safe, and I think that they appreciate the fact that I really ... I'm doing everything I can to protect them also.”

Administrators have also used incentives to hire new staff. Respondent 6 (large ALC) discussed how the industry is now in a wage war given the need for staff within ALCs. This administrator explained, “our wages have gone up in most departments $3 an hour more just in the last probably month or two because we have to keep raising and raising.” Respondent 7 (large ALC), stated, “We actually have a sign-up bonus to get resident care in the building to keep them.” Respondent 8 (large ALC) further described the incentives, “…we’ve increased wages, we’ve offered more flexible schedules to be more accommodating.” However, they went on to say, “We’re still struggling to find staff that wants to work.” While some ALCs still struggled to hire new staff, administrators continued to demonstrate their leadership through extrinsic rewards, such as monetary incentives and bonuses, to attract staff to join the team and to stay there.

Incentives were also used to encourage staff to get the vaccine. These incentives included monetary raffles or prizes for being a “life saver”. Respondent 9 (large ALC) explained that their ALC did 15 raffles for $100 each for staff who got vaccinated. Respondent 3 (small ALC)

discussed how they got “red T-shirts that had the Lifesavers on them, the pack of Lifesavers, and that was our theme.” Many administrators tried to make the receipt of the vaccine convenient for staff by having a service clinic come to the facility. Vaccine encouragement also went beyond the staff member in some communities. Respondent 10 (small ALC) explained how they “opened it up to allow them to bring their family that was having difficulties getting to locations to get their vaccine” and “that worked out real good.” This scenario also speaks to the support administrators had toward the family of staff, a crucial aspect to leadership within ALCs.

Another facet of our theme of how leaders showed support was through empathy toward staff and understanding of different opinions and reasons for the choice not to get the vaccine. Respondent 1 (small ALC) explained:

> I want to emphasize that people, that we absolutely need to encourage, not fight with anyone about getting this vaccine, but inform them of where it's available, so that they could go ahead and get it. If there are people who need a ride there, we need to extend that service to those who may need that encouragement, or what have you.

While two administrators stated they require staff to get the vaccine to work in their ALCs, most respondents described that their communities took the “encourage, not fight” approach. This encouragement was displayed through their leadership not only in the form of incentives to get the vaccine, but also through discussions and education about the vaccine, as further discussed in the second subtheme of Communication.

Subtheme 2: Communication

Leadership shown toward staff was also displayed through communication between administrators and staff. One way our respondents communicated was through engaging staff in

discussions and providing them information and education about the COVID-19 vaccine. Respondent 3 (small ALC) informed:

> I've sat down and individually talked to associates when they had questions and concerns. Our corporation did videos about the pros and cons. We've done everything that we can, and I think more and more are going to step up now because we're seeing a little bit more of that.

Respondent 11 (large ALC) provided staff with "a leaflet that the CDC has on this information" and "a little poster [from] the Department of Health". Respondent 1 (small ALC) explained, "We had to meet and talk through the fallacies and the rumors, and the doomsdayers' ideologies. We had to table those."

Education went beyond the vaccine. Throughout the pandemic, administrators kept their staff informed and updated on policies and regulations they were to follow. Some of the respondents described how they sent emails or text messages to staff while others discussed having bi-weekly, weekly, or even daily meetings with staff to keep them updated. Respondent 12 (small ALC) attributed their success of only one staff member who contracted COVID-19 to the constant reminders and education they provided to staff as described in this example quote:

> I think what we did, we have a group meet for my staff. So, it's just for staff, and I was constantly out there saying, "Please be mindful of this. Here's what I hear on the industry page. Here's what they're reporting. Please be mindful of this." So, I think I kept them educated as well as educating myself at the same time by the social media. So, I moved that on and kept them educated that way.

Electronic forms of communication with staff, such as email and texting, were commonly reported by administrators. Respondent 13 (large ALC) described, "We have another system,

OnShift, that we can do mass texting to all the staff, let them know we have a positive [case] and we're following CDC guidelines." Respondent 9 (large ALC) explained, "And every way that you could communicate was happening, a lot of texting, just the demand was heavy." Respondent 9 also emphasized the importance of "continual education" to reinforce policies related to the management of COVID-19:

> … our whole team gets together every day, three times a day and we go ahead and continually educate and reinforce what our policy is, inform them of any changes as it relates to COVID … It's just constant reinforcement, education and we encouraged everyone to get their vaccines.

Theme 2: COVID-19 Impact on Staff

The second overall theme was the impact COVID-19 had on staff. The impact COVID had on staff was broken down into two subthemes: 1) additional tasks staff had to complete (including two categories of navigating resident engagement and navigating infection control practices) and 2) staff reactions to the pandemic (including two categories of emotional and behavioral reactions).

Subtheme 1: Additional Tasks

Category 1: Navigating Resident Engagement. With the need and priority to protect residents and keep them safe, challenges arose with additional tasks and efforts to maintain a high quality of life for the residents. One way staff tried to maintain this quality was to find new ways to engage residents given that many ALCs stopped group activities. Respondents mentioned staff engaged residents on a more "one-on-one basis" or in "an individual setting." Other respondents described how they tried to incorporate group activities while residents were

still separated. Respondent 14 (large ALC) said, “We would try to do Bingo from the hall. My activities person was good about trying to keep people involved with packages and things to do.”

Much of the interaction staff had with residents to keep them engaged used technology to connect with their families. Respondent 4 (small ALC) said, “Most of the interaction that we had with them was one on one, but we also used a lot of video for them and the family.” Respondent 4 continued to describe how they “had a mandate within the facility that three times a week, they were to call up a member of the family and them then talk to them.” Respondent 15 (small ALC) described how a schedule was created for when staff would help residents call their loved ones, “I had a schedule set up where we would call the family on certain days for certain people, that way there was weekly communication with family members.”

While many staff engaged residents in “FaceTime, Skype, WhatsApp, window visits” to help improve their quality of life and maintain connection with family, some respondents addressed the difficulty or confusion this caused residents living with dementia. Respondent 14 (large ALC) described this challenge of how residents with dementia were confused and did not understand the technology well, “I think it was more for the benefit of the family than it was for the resident.”

Category 2: Navigating Infection Control Practices. Many of the additional tasks staff engaged in due to COVID-19 related to infection control. Due to the need to follow strict infection control practices to keep residents and staff members safe, staff navigated tasks such as separating residents, different mealtime schedules, frequent sanitizing, filling in for absent staff, and more. A first reaction to manage the spread of infection was to separate residents and maintain social distancing. Many respondents described a change in their meal schedule to

maintain distance. This also took a toll on staff who spent more time than before the pandemic to make sure residents ate their meals safely. Respondent 15 (small ALC) described,

> We staggered the meals, so we were all feeding people pretty much all day long… It was awful. We were cooking, we were feeding all day long…That was hard because we were forcing people to be alone and it was for their own good, but it wasn't an ideal situation for their mental health or for ours for that matter.

Other respondents described how they decided to deliver meals to residents in their rooms, which also required staff to spend more time navigating the mealtime process.

For ALCs that still had residents eat in a common area, additional sanitation was required to maintain infection control. "We did keep our dining rooms open, we just expanded the times, so we had three times originally, went to six times, and then we kind of spread the tables out and then there was infection control, sanitizing between meals" (Respondent 13, large ALC). Respondent 16 (large ALC) explained that they did not close their dining hall due to "the choke hazard of [residents with dementia] eating in their rooms", so they chose to "spread out their eating at the tables" for staff to better monitor the residents.

Other respondents spoke to the difficulty and additional tasks staff had to take to follow infection control practices while working with residents with dementia. In reference to residents who have dementia, Respondent 17 (small ALC) said:

> I think it's been different because they don't know the safety aspect of things. It's like they wouldn't keep the mask on. So there has to be that caregiver, has to be more diligent about using the hand sanitizer and making sure they are washing their hands and making sure they're not sneezing on somebody or like that. It's been more on the caregiver, just to make sure they're doing the safety precautions.

Respondent 3 (small ALC) explained:

> We had to be proactive about keeping masks up and everything because they couldn't. So that's why we didn't allow outside visits. Because of that, we would do window visits and stuff, but we just had to really have extra precaution there because the social distance doesn't work with memory care and the wearing the mask doesn't work.

Restricted visitation was also discussed as a general strategy to manage the spread of infection. Respondent 16 (large ALC) stated, “We had hospice. They were allowed in because of what they were, but we did not allow their aides to come and do the showers…because they were going to several facilities, and we didn't know what other facilities were doing.” As a result, the ALC staff assisted with showers because the hospice aides were not allowed to enter the ALC. In reference to “staff outages” due to restricted visitation of agency staff, Respondent 18 (large ALC) explained:

> All staff basically were filling in for whatever role was needed, so administrators were coming in as RAs, or as the cook when the cook was out. It was basically just an all hands on deck because we didn't have a bench to pull from.

For some ALCs, restricted visitation also included doctors. This strategy for infection control, along with doctors’ restriction of in-person appointments, led to an increased use of telemedicine. While some respondents viewed telemedicine as a positive experience, others discussed the drawbacks, including the need for assistance from staff:

> If the resident was a little more high functioning and could interact, it was perfect. The residents not, then that required our staff to be in there which that's kind of a challenge because we have four floors and I don't usually have, we may not have a

> CNA or nurse to escort or provide service during that telemedicine visit, so that was a challenge (Respondent 13, large ALC).

Respondent 8 (large ALC) discussed how staff had to bring their own technology devices to conduct the appointments, and this occasionally conflicted with their shifts. Due to lack of resources to buy or access tablets, Respondent 8 admitted, "[Telemedicine] was definitely a struggle for us."

Navigating infection control policies for staff also included required infection control screening. Respondents described how staff completed their temperature checks when they arrived to the ALC and throughout the day in many ALCs. They also participated in COVID-19 testing as a precaution. Respondent 14 (large ALC) described how often staff were tested as well as the time it took to conduct all the testing:

> We were testing every other week unless they were symptomatic and then we would test them right then and there. So, it was every two weeks. Now we're testing if we have a concern. It was like having a second job when you were doing all the testing, it really was.

Two respondents mentioned that their ALCs required the COVID-19 vaccine as a measure of infection control. Respondent 10 (small ALC) said, "Everybody was in agreement with it." Respondent 19 (large ALC) explained the vaccine is required "at both facilities, for all staff, and we have also made it mandatory for third party providers." Other respondents discussed how their corporation was considering a vaccine mandate. Some respondents explained that they cannot mandate the vaccine because they will not have enough staff if staff choose not to get the vaccine. For ALCs with a vaccine mandate, this was an additional task staff had to complete to navigate infection control practices and remain in their positions.

Subtheme 2: Emotional and Behavioral Reactions

Category 1: Emotional Reactions. When administrators were asked how COVID-19 affected staff, they spoke to the general emotional impact staff experienced, such as "constant worry", "fear of the unknown", and the need for psychological services to help staff manage their mental health. Respondent 20 (small ALC) explained that one of the hardest things was to see residents decline from separation from other residents and their families, "…that hit the staff extremely hard… It took a toll. Our staff is tired across the board, and they've done a great job." Due to the restriction policies, staff experienced worry and moral distress because they were unable to care for their residents in the way they needed to. The following example illustrates this emotional reaction:

> When we look at the health care worker, they had to worry about the residents that they were taking care of, and they had to go home and worry about their families, making sure that they were safe. And I know a lot of them are always concerned if, "Am I going to bring it back to my loved ones?" So, that's a lot of stress for that length of time. And I think that's really where we owe a lot of gratitude to the healthcare worker.

Multiple respondents also spoke to how tired they and their staff were. Respondent 2 (large ALC) stated, "I've been doing this since 1985. It's been the most stressful year of my life. I think I probably aged 10 years." Respondent 21 (small ALC) explained how after doing the work of more than one person to save money on paying direct care staff during the pandemic, they have decided to quit:

> It's very tedious, very tiring. I'm a very tired person, so I am the next one going on the list of getting out of the business. I'm being honest with you. I love what I do, but it's very tiring for me now.

Respondent 18 (large ALC) explained the progression of staff's emotional response throughout the pandemic, "I think that in the beginning there was fear. It mirrored I think a lot of the general population response in the beginning, fear of the unknown." They also explained how residents were even more grateful for staff's efforts in keeping them safe:

> And then, we had an appreciation of our residents. They understood we were showing up every day and we were helping to keep them safe, and we were doing things, anything within our power…so they had a safe place to be while all this was happening.

They concluded, "And then, as the months and the months turned into a year, and so on, after that there eventually became restlessness, again, mirroring what the rest of the general population in my opinion had been feeling…"

In addition to fears about the pandemic, some staff also experienced a fear of getting the vaccine. Respondent 12 (small ALC) explained a few reasons for this fear:

> I've had some staffing that did not want vaccinations. And they don't want them because number one, they were younger, and they were worried about reproductive complications down the road. And others of them are a little older and they have some health issues and their doctor told them to wait.

Respondent 17 (small ALC) discussed how some staff members got the vaccine and showed others that they were "all good", "And still there's that fear. It's mostly the younger, the 20- to 35-year-olds that are afraid to get it in my group."

While many respondents discussed different fears staff had, others mentioned the importance of no fear. Respondent 2 (large ALC) discussed how staff "rose to the occasion" and showed no fear, "They were not afraid. We gave them the option to not work if they weren't comfortable. They were all in." When asked for advice about how to deal with the pandemic, Respondent 2 stated, "Don't be afraid of it. You can't be afraid. You can't be. You got to take it super seriously, but you can't be afraid of it." Respondent 21 (small ALC) explained their staff showed concern for residents and did not want them to be afraid. Instead of talking about the pandemic "we talked about life and talked about movies, and we tried not to focus on what was going on out there with the deaths and all that. I didn't want them to be afraid."

Category 2: Behavioral Reactions. A behavior exhibited by staff in response to the pandemic was identifying symptoms displayed by residents. Respondent 2 (large ALC) explained how they and another staff member "became experts at spotting people who had symptoms." Other respondents showed confidence in their staff's ability to notice when a resident did not feel well, especially a resident with dementia,

> We have a big team on that floor, so we know those residents really well day in and day out and if there's any change in behavior. So, if they can't voice it to us, we can see by their behaviors that they're not feeling well (Respondent 14, large ALC).

Respondent 6 (large ALC) told a story of how their staff could tell a resident had COVID-19, and they took action to prevent the spread before receiving a positive test result. This ability to identify symptoms in residents benefited everyone in the ALC.

Respondents spoke to the use of media during the pandemic as well. Some staff viewed the news or social media as a way to learn more about the pandemic. Respondent 11 (large ALC) explained the difficulties this caused with staff:

> It was horrible…We asked our staff to not watch TV to hear the news. Don't believe what you hear on social media, or whatever someone's telling you through the grapevine, because they work here, work there…We limited where they got their information, and we asked them to just be considerate of that.

Respondent 23 (small ALC) discussed how both residents and staff were drawn to media:

> They beat it to death all over – the fear – on the TV. And I kept saying, "Shut that off. Go outside to the park. Do something else." But the caregivers get caught up in it too, and it's a fascination of that stuff.

Respondent 20 (small ALC) spoke to how news media staff read played a role in their choice to not get the vaccine. Respondent 20 stated:

> One of our nurses that passed, he was Filipino. And there's a lot of articles that came out on how it attacks, attacks them for some reason…And I think the others in that particular building that were Filipino, they decided they weren't going to take it… They didn't want to risk having a shot and something happening to them."

Other respondents spoke to how some of their staff chose not to get the vaccine for religious or cultural reasons. Respondent 14 (large ALC) stated, "They just don't believe in it."

The practice of teamwork is a final behavioral reaction under the theme of COVID-19 Impact on Staff. As a response to COVID, many respondents spoke to how staff worked together to keep everyone safe, manage the spread of infection, and maintain a high quality of life for the residents. Respondent 2 (large ALC) explained,

> People really rose to the occasion. We didn't have any staffing shortages, up until recently. The staff wanted to be... you know that whole hero concept that went with COVID? They were all in. They were not afraid. We gave them the option to not

> work if they weren't comfortable. They were all in. Everybody came through it beautifully.

Respondent 18 (large ALC) said, “The staff really stepped in to fill in the holes when they existed.” Respondent 17 (small ALC) similarly responded, “We made it through, everyone pitched in, everybody did their job.”

Theme 3: COVID-19 Impact on Staff Retention

The third and final theme we created from administrators’ interviews is the impact COVID-19 had on staff retention. There were varying dimensions of staff retention with many respondents reporting staff shortages, reasons for those shortages, and difficulty hiring new staff. Other respondents discussed how they had good staff retention throughout the pandemic. Respondent 17 (small ALC) stated, “I never lost any staff during COVID. We had the same staff the whole time.” Respondent 5 (small ALC) experienced a similar response from staff for retention: “We maintain a one to three ratio, and we've been able to do it for the entire time.”

Respondent 14 (large ALC) discussed having to use agencies to care for residents who tested positive for COVID-19 because staff did not want to take on that role; as a result, those staff were then “assigned elsewhere.” Respondent 24 (large ALC) took a different approach to staff’s desire to not work in an area with residents who tested positive. The policy was:

> [Staff] would need to have a doctor’s note specifically precluding them from working in a COVID-19-positive area. Without the note, staff had to work where they were needed, or they were let go. . . staff decided to stay and work in the areas they were needed most (Respondent 24, large ALC)

Respondents discussed how COVID-19 led to staff absence as well. Respondent 6 (large ALC) explained that when a significant number of staff were all absent due to having COVID-

19, they resorted to trying to hire agency staff, “but no one contacted [them] about it until [they] no long needed them.” Respondent 6 explained the policies put in place as a result of being short staffed, “Everyone who was in the building, I don’t care what position they were, helped…We all just did resident care and housekeeping and infection control. We had to.”

Another reason for staff shortages was absence due to the families of staff. Respondent 13 (large ALC) explained, “I think we had about six or seven staff which, based on contact tracing, seemed like all of them were outside the building, from families, their kids, mostly kids.” Respondent 7 (large ALC) said, “I just had an employee now that has been out for 12 days, and she can't come back ‘til Sunday because her boyfriend ended up getting COVID.” As a result of these staff absences, “a lot of overtime we've been using, because we want to make sure that we're staffed in the building.”

Respondents spoke to how they lost staff due to the government financial support people received during the pandemic. Respondent 17 (small ALC) explained, “Now, all of a sudden, they're getting all these big drops of money. I've lost five staff in the last six weeks.” Respondent 22 (large ALC) described the detriment of the “extended unemployment and benefit…I had five people quit on one day when they got a check in their mailbox, and with no notice.” Many respondents also discussed how money from the government inhibited their ability to hire new staff. Respondent 2 (large ALC) discussed, “The problem we're having now, though, is that hiring new staff is almost impossible…. Unemployment is paying so much that they're not looking for jobs, or they're half-heartedly looking for jobs.” Respondent 3 (small ALC) stated, “Hiring new staff has been difficult, particularly with the assistance programs that went in place financially for them. The staffing market is really challenged right now, and it is a direct result of COVID.”

Discussion

This qualitative study explored the leadership demonstrated toward ALC staff during COVID-19 and how the pandemic impacted staff and staff retention from the perspectives of AL administrators. Using thematic analysis, we interpreted that leadership was shown through factors of support and communication. In addition, the impact on staff was discussed through the demand of additional tasks and through staff's emotional and behavioral reactions. Impact on staff retention was interpreted as well.

Leadership is an important aspect of the work environment, especially during the COVID-19 pandemic, and can influence staff satisfaction, motivation, sense of appreciation, and quality exchanges that are essential to this environment. We found that the leadership demonstrated by our respondents aimed to support, recognize, and inform staff. These were the most discussed factors of leadership, and administrators perceived that they made a positive impact on the work environment and staff retention. Administrators' perspectives on the impact of these elements of leadership support recent research that investigates how to retain direct care workers in NHs (Berridge et al., 2020; Creapeau, Johns-Artisensi, & Lauver, 2022). The use of intrinsic and extrinsic rewards is persistent throughout the literature and our results. Berridge and colleagues (2020) found that leadership support, training, aspects of communication, and staff appreciation were associated with nursing assistant retention. Similarly, Creapeau and colleagues (2022) found that in addition to increased staff wages, staff appreciation, positive work relationships, communication, and training are important to reduce CNA turnover in NHs. Our results further emphasize the positive impacts of intrinsic and extrinsic rewards through leadership support, recognition of staff, and providing staff with information, including regular communication, training, and education, within the AL setting.

These elements of leadership are aspects of empowerment. Staff empowerment has been shown to have a positive impact on the work environment, including better relationships among staff, staff stability, and person-centered care (Berridge et al., 2018; Berridge et al., 2020; Bowers & Nolet, 2011; Caspar et al., 2020a; Caspar et al. 2020b; Creapeau et al., 2022). Our results support these previous findings and speak to how leadership through empowerment can play a role in aspects of staffing. This leadership practice may have given staff intrinsic rewards via a sense of purpose and greater sense of appreciation for what they did throughout the pandemic. Such rewards may have helped maintain staff and foster positive relationships between them and the administrator. Many respondents spoke to how their staff knew the administrator cared for and prioritized their protection. These positive relationships can provide staff with further intrinsic rewards and help them feel more grounded in their work to know their well-being was considered along with the residents.

Empowerment also includes group efforts to cover shifts and the choice of residents to care for (Berridge et al., 2018), both of which were discussed by our respondents as aspects that kept their ALC functioning during COVID-19 and helped retain staff. We interpreted these two aspects of empowerment as staff's behavioral reactions to COVID-19. Many respondents spoke to how when staff were absent, other staff filled in the gaps. Stepping up to cover shifts of absent staff is an element of teamwork, a common behavior discussed by respondents. As perceived by many administrators, this teamwork is what got their ALC through the uncertainty and rapidly changing protocols throughout the pandemic. A culture of teamwork and supportive staff as described by our respondents can improve the quality of resident care and impact staff retention.

Another aspect of a culture of teamwork is collaboration among staff on the choice of residents to care for. Respondents spoke to how some staff members did not want to be assigned

to residents who tested positive for COVID-19. This behavior may be related to fear of the virus or other emotional reactions and concerns staff had that led to their desire to choose who they cared for. Fostering a work environment that encourages and practices teamwork and respects staff's choice of who to care for may be beneficial elements of empowerment that maintain the successful function of an ALC and achieve staff retention.

One noticeable aspect of leadership that we interpreted from administrators is that leadership and support extended beyond the work environment to include staff's families. Research emphasizes the importance of family-supportive supervision (Almeida et al., 2016; Kossek et al., 2011; Lapierre & Allen, 2006), and our interpretations of administrators' perspectives confirm the importance of this. Many administrators considered staff's families when providing them with supplies, recognizing staff, and trying to understand staffs' perspectives about COVID-19. Some administrators provided supplies or care packages for staff's families, and others discussed how bonuses (e.g., extrinsic rewards) were used to show staff that the administrator cares about their family as well. Some respondents even encouraged staff to bring their families to the ALC to receive the vaccine. This support of staff's work-family balance is essential to help them manage the demands of their job and needs of their families. Many of our respondents took the approach of support and acknowledgement of family concerns that may have given staff the confidence they needed to successfully navigate the complex demands of the pandemic.

Respondents discussed the impacts staff experienced through the demand to complete additional tasks as well as their reactions to COVID-19. The need to complete additional tasks contributed to the emotional and behavioral reactions of staff. With visitation restrictions and the need to social distance, staff had to navigate new ways to engage residents and maintain their

quality of life. For many ALCs, this meant resident engagement on a one-to-one level. However, this approach was not feasible for all ALCs. Respondents discussed the moral distress staff experienced in navigating infection control practices and seeing the negative impact they had on residents. Some respondents emphasized how difficult it was to watch residents' physical and mental decline due to not seeing their families, limited interactions with others, and absence of physical touch. Visitation restrictions, separation of residents, and general social distancing were key forms of infection control but led to demand for staff to navigate the ALC's daily operations from a distance. These protocols posed a challenge for staff in an environment that relies on social interaction to care for residents and foster a high quality of life.

Our results inform ways in which leadership was able to combat moral distress during the pandemic. While staff had to keep residents separated, administrators found ways to maintain social interaction and high morale among staff and residents. Creative ways some administrators used included playing games and music from the hall to maximize resident engagement and connection with staff, as well as using hall space to make mealtimes more lively. Respondents also discussed the compromises they made to infection control protocols to benefit residents' well-being. These compromises primarily involved working with residents with dementia. Respondents discussed how residents did not understand aspects of infection control, such as the purpose of personal protective equipment (PPE) and the need to social distance. Some administrators decided it was not feasible to require these residents to wear masks or stay in their rooms. Instead, residents were allowed to walk around the ALC, and staff were more cautious about their own use of PPE and more carefully observed these residents to make sure they maintained distance from others. This compromise in infection control practice and the role of staff may have helped limit the moral distress staff experienced trying to follow guidelines that

did not meet the emotional and physical needs of residents. One strategy to provide direct support for staff in managing such stressors of COVID and address their moral distress was to provide a behavioral health program. This program also included education "about managing self-care, stress, anxiety, and depression, for self and family and others." Providing staff with this resource was a vital aspect of leadership and supporting staff's moral resilience.

Respondents also spoke to the fear that surrounded COVID-19 including fear of contracting the virus, fear of giving it to someone else, and fear of the vaccine. These various emotions led to different behaviors as perceived by administrators. Respondents discussed how some of these behaviors were not beneficial to the work environment, such as fascination with the news or media that worsened staffs' fears, and the choice to not receive the vaccine due to fear. While two respondents required their staff to get the vaccine, most did not. Reasons that respondents mentioned for requiring the vaccine included the mindset that it was essential to keep residents and staff safe and because everyone agreed to get it. Reasons mentioned for not requiring the vaccine included the mindset that staff should have the choice, it should be encouraged but not forced, and that staff would leave their position if they had to receive the vaccine. However, a recent study by McGarry and colleagues (2022) investigated the association between vaccine mandates for NH employees and their rate of staff vaccination and staff departures. They found the vaccine mandate to be associated with greater staff vaccine coverage but not associated with greater staff shortages (McGarry et al., 2022) as feared by many of our respondents. Future research should examine the association between staff vaccination mandates and staff retention in ALCs.

While many administrators indicated good retention, they still discussed staff shortages. These shortages referred to staff absence from work and difficulty hiring new staff. Respondents

primarily discussed two reasons for shortages with current staff: absence due to COVID-19 illness and absence due to family reasons. The main reason respondents believed there is a staff shortage with hiring new staff is due to government financial support received throughout the pandemic. We interpreted a pattern of respondents stating they experienced good retention but have a difficult time hiring new staff due to government money. From these perspectives, hiring is more of a concern than staff retention. This trend among our respondents supports recent research on how hiring staff replaced staff retention as the top challenge among the senior living workforce (Regan, 2020). Our results contribute a potential reason for the widespread difficulty of hiring new staff in AL during the pandemic: receipt of government financial support, or stimulus checks. A few respondents discussed how they also had staff leave their positions after they received their check – some without notice. However, most respondents spoke to this financial support as a barrier to the recruitment and hiring of new staff. Current problems with hiring staff may now be more-so due to other factors given the discontinuance of government support for COVID-19. Administrators' interviews indicate this may have been a significant factor to this top workforce challenge during the height of the pandemic.

These findings have implications for future research, policy, and practice within ALCs. Our results support the importance of leadership through staff empowerment of the ALC workforce and the significance of intrinsic and extrinsic rewards. Researchers should consider the exploration of trainings that are effective at preparing administrators to promote and foster staff empowerment within their ALCs and how to provide various rewards. For example, AHCA and NCAL partnered with PHI to create an online training for senior living supervisors focused on different types of supervision, skills, and communication styles (Kyllo, 2022). Research should explore different training programs to inform their effectiveness and implement further

training for leaders to build their supervisory skills and practice of staff empowerment. Policymakers may consider mandatory training for AL administration to prepare leaders for their roles and to continue their education in effective managerial strategies within the AL industry. Current administrators should consider the practice of staff empowerment and intrinsic and extrinsic rewards to benefit their staff and overall work environment. They can do this through participation in further education or training on leadership practices as well as participation in research to provide further insight into effective strategies in this setting.

More information is needed on moral distress in ALCs. Our results suggest that leadership can play a significant role in reducing moral distress and promoting moral resilience. Future research should explore this concept within ALCs to inform areas of need among direct care staff and how leaders can best support them. This information may also inform strategies for staff retention, job satisfaction, and turnover. In addition to participation in leadership trainings, current administrators might consider their own approach to moral distress among their workforce and how they can build a sense of community and reliance among their staff.

Resident engagement presented challenges throughout the pandemic with the need to social distance but lack of staff in many ALCs for sufficient one-on-one engagement with residents. ALCs are diverse in terms of size, licensure type, and resident-case mix. These factors need to be taken into consideration when addressing COVID-19 and pandemic restrictions. Research should further investigate these differences as they relate to resident engagement. This is especially true for residents with dementia, who presented additional challenges for staff. Researchers might consider the investigation of best practices with these residents during crises. In addition, policies and guidelines specific to working with residents with dementia are needed during times of crises. These tailored guidelines have the potential to improve safety measures

(i.e., infection control practices) for staff and residents with dementia and prevent moral distress and confusion for staff in how to navigate infection control protocols with residents who may not be compliant. In practice, ALCs can be aware of how their community is different from other ALCs and how that may impact resident engagement. One way to do this is to participate in research that investigates ALC differences and guidelines during crises. This may benefit the participating ALC and would contribute to scholarly knowledge on best practices and options for resident engagement within the AL industry.

Further research on staff recruitment is needed. With hiring new staff as the top challenge among the senior living workforce (Regan, 2020), researchers may consider investigation of successful strategies to hire new staff, such as various types of incentives and career development opportunities within the AL industry. In addition, while many of our respondents did not perceive difficulty with staff retention, other ALCs may experience challenge with this aspect of staffing. Research should explore not only current factors of staff retention (e.g., higher wages, bonuses, gestures of staff appreciation) but also strategies to achieve retention that may guide policy and practice in a direction to improve the overall challenge of staff shortage experienced within the AL industry, such as staff's ability to choose their own schedules and restructuring the opportunities for professional development among direct care staff.

Limitations of this study should be considered. While qualitative research is not designed to be generalizable, it is worth noting that these results and themes do not represent all administrators' perspectives or experiences during the pandemic. Another limitation is that each administrator participated in their interview at different times over eight months. The timing of respondents' interview may have influenced the experiences they discussed and the perceptions they had. In addition, participants may not have felt comfortable with the communication of their

perceptions on these topics, which may have limited the information we were able to analyze. There may also have been respondent bias where those who felt more strongly about their experiences were more likely to be willing to participate compared to those who did not participate. Finally, in all qualitative research, researchers' bias affects how the data are analyzed. Hermeneutic considerations posit other researchers may analyze these data in a different way given their positionality, epistemology, and worldviews.

Conclusion

Overall, this study offers interpretations of administrators' perspectives on the impact of COVID-19 on AL staff. We highlight aspects of leadership that were important to the AL work environment during the pandemic along with various impacts on staff themselves and staff retention as perceived by respondents. The words of administrators and the themes we created may help inform and encourage further research on these topics within AL. They may also inform policies and practices that benefit staff and staff retention, especially during disasters such as COVID-19. This knowledge has further implications on efforts to continue the provision of high quality of care within ALCs even through times of crisis.

Tables

Table 3.1. ALC Characteristics ($N = 43$)

	Small ALC (<25 beds) (n = 20)	Large ALC (25+ beds) (n = 23)
Total Beds (M/SD)	8.4 (4.9)	105.7 (56.7)
For-profit (%/n)	90% (18)	87% (20)
License Type (%/n)		
ECC and/or LNS	5% (1)	17.4% (4)
LMH	5% (1)	4.3% (1)
Provides Memory Care Services (%/n)	20% (4)	43.5% (10)
Accepts Medicaid (%/n)	50% (10)	47.8% (11)
Chain Membership (%/n)	65% (13)	95.7% (22)

Note. ALC = Assisted Living Community; ECC = Extended Congregate Care; LNS = Limited Nursing Services; LMH = Limited Mental Health.

Table 3.2. Respondent Characteristics (n = 26)

	Participants (%/n)
Female	69% (18)
White	73% (19)
Black	15% (4)
Unknown race	12% (2)
Owner/Administrator position	92% (24)
Other management position	8% (2)
Represents >1 community	19% (5)

Note. Other management positions include Regional Director of Operations and Comptroller.

Table 3.3. Sample Quotes for Each Theme by Small and Large ALC

Theme	Small ALC	Large ALC
Leadership Shown Toward Staff		
Subtheme 1: Support	*Respondent 4* We did encouraging things like letters sent out to families recognizing hero of the week… Little, little things like that really made a difference. It made them show up for work, it made them come in. It made them be there, so we've had no staffing issues the whole time.	*Respondent 2* I made them a promise. I said to them, "I'm going to get you everything you need to keep you and your residents safe, and if you get an outbreak of COVID, I will be there with you," and I was. That's how I supported them. I got them their necessary supplies.
Subtheme 2: Communication	*Respondent 5* Right as soon as this hit, I started communicating with my staff constantly and educating them on infectious disease and control.	*Respondent 11* We had weekly staff meetings to update, or if anything, new that was presented to us from AHCA or the Department of Health, or from the government itself, any new emergency order that came in, we had staff meetings.
COVID-19 Impact on Staff		
Subtheme 1: Additional Tasks		
Category 1: Navigating Resident Engagement	*Respondent 20* We surely didn't have 30 activity staff members that we could do one on one with residents. So, it made it a challenge, but we use the technology that we had, and the music and the movies and the things that we knew that they could relate to…	*Respondent 25* I know our activity teams were going around trying to do room-to-room visits trying to create fun experiences for residents in an individual setting, but it's not the same as getting out in a group.
Category 2: Navigating Infection Control Practices	*Respondent 12* I did not require my residents to wear PPE because of the dementia. Number one, they would not understand. Number two, we tried, they weren't having it, and I'm not about to force them. So what we did was we kept them as separated as possible. Staffing, of course, always wore PPE. Visitors were not allowed, so that was not a concern. And we did the best we could.	*Respondent 7* We're monitoring [staff] temperatures daily and anybody that walks in the building, we ask them to go through a routine of questions if they're ill and if they're running a... we check their temperatures and things like that.

Table 3.3. (Continued). Sample Quotes for Each Theme by Small and Large ALC

Theme	Small ALC	Large ALC
Subtheme 2: Emotional and Behavioral Reactions		
Category 1: Emotional Reaction	*Respondent 17* It's just the constant worry of somebody getting sick. …. That's probably the hardest thing about this pandemic, is the constant worry.	*Respondent 6* Every day we were just afraid. And we had to obviously just deal with that and not show that fear and anxiety that we had because we needed to be strong for our families and our residents.
Category 2: Behavioral Reaction	*Respondent 15* I just think it was a team effort. We all agreed that this is what we had to do and we all did it as staff. I think whether they appreciate it or not, I think we did the right thing for our residents.	*Respondent 18* I've been really impressed with how our staff have all pulled together and pitched in. People just found whatever way that they could in order to be here to meet the needs of the residents that we have and that was very impressive, and I think really brought us together as a group, which was really nice.
COVID-19 Impact on Staff Retention	*Respondent 26* This isn't a good time for the health and social care community in terms of recruitment. It's a very difficult time. There's lots of, should we say state supportive benefits, that mean people are better off at home, financially, in some respects, which makes recruitment a hundred times more difficult.	*Respondent 3* We lost two caregivers that had been with us for awhile that were really good, but they ran into childcare issues and they just couldn't do it. So they had no one that could help them.

Note. ALC = Assisted Living Community; COVID-19 = Coronavirus Disease of 2019.

CHAPTER 4: MIXED METHODS DISCUSSION

Overview

This dissertation investigated the impacts of coronavirus disease 2019 (COVID-19) on staffing and leadership within assisted living (AL) as perceived by assisted living community (ALC) administrators. We used quantitative and qualitative analyses to investigate the research questions. To facilitate a discussion and integration of the results from both approaches, we employed a mixed methods approach. Therefore, our "point of interface", where we integrate the quantitative and qualitative results (Morse, 2016), takes place during the interpretation phase of this research. O'Cathain, Murphy, and Nicholl (2010) describe a technique called the "triangulation protocol" during interpretation that involves the creation of a "convergence coding matrix" (referred to as "matrix" hereafter) to combine the quantitative and qualitative data on the same page to consider how the results relate to each other. Triangulation in this context refers to the use of two methods (i.e., quantitative and qualitative approaches) to gain a more complete understanding of a topic or issue (O'Cathain et al., 2010).

In our matrix, the rows represent the ALCs that are present in both the quantitative survey results and the qualitative interviews. The columns present the descriptive statistics of the quantitative variables and exemplar quotes for each qualitative theme if discussed by the respondent. We then used the matrix to consider relations between the quantitative and qualitative data, including aspects of full or partial agreement or disagreement, as well as silence where a result is present in one dataset but not indicated in the other (O'Cathain et al., 2010). This discussion provides an overview of the findings from the quantitative and qualitative studies

followed by a discussion on the integration of the two datasets. Table 4.1 represents an example row from the matrix.

The first part of this dissertation employed quantitative statistical analysis to investigate how structure and process characteristics of an ALC are associated with staff absence from work during COVID-19. Hierarchical regression showed that regardless of ALC structure characteristics other than the provision of memory care services, challenges with sending staff home due to COVID-19 and paying staff time off due to COVID-19, as well as staff anxiety, significantly predicted the outcome of staff absence from work. While a few structure characteristics were significantly associated with greater staff absence from work in Model 1 (COVID-19 positivity rate, memory care services, chain membership, and adequate staffing of CNAs/Aides), once the process characteristics were accounted for in Model 2 only memory care services were still significant. This research suggests that expanding our knowledge on the provision of memory care, staffing challenges, and staff anxiety during COVID-19 can inform policies and procedures that will improve staffing and resident outcomes during a disaster such as COVID-19.

The second part of this dissertation employed qualitative thematic analysis to explore the perceptions of ALC administrators on the impact of COVID-19 on staffing and leadership. We interpreted three key themes from the interviews: Leadership Shown Toward Staff, Impact of COVID-19 on Staff, and Impact of COVID-19 on Staff Retention. Respondents discussed aspects of the leadership they demonstrated through support and communication. The impact on staff was discussed through the additional tasks staff completed to engage residents and follow infection control protocols as well as the experience of emotional and behavioral reactions. Staff retention was generally positive while hiring new staff was discussed as the top challenge with

staffing. These results highlight the benefits of leadership through staff empowerment and call for further research on best practices during times of crises, resident activities with minimal demand on staff, and guidelines specific to resident with dementia.

Convergence Coding Matrix

The quantitative findings of the significance of providing memory care with staff absence from work, along with the significance of staffing challenges (i.e., sending staff home due to COVID-19 and paying staff time off due to COVID-19) and staff anxiety inspired the exploration of triangulation to determine if the qualitative interview data support or reflect these aspects of the quantitative survey data. Therefore, we primarily explored the matrix through the lens of these three topics to further understand our quantitative findings and facilitate discussion. Two members of the research team analyzed the matrix and agreed on the following interpretations. The matrix showed areas of high concurrence between the two datasets concerning providing care for residents with ADRD, partial agreement and silence on staffing challenges, and partial agreement on staff anxiety.

Working with Residents with Alzheimer's Disease and Related Dementias

Whether an ALC provides memory care services, or cares for residents with ADRD, was a significant predictor of staff absence from work in the quantitative results. This relates to a recurring theme in the qualitative interviews of the additional difficulty of working with residents with ADRD during the pandemic. The matrix showed how our qualitative data complements the quantitative data on this topic. Many respondents from the represented ALCs that provide memory care services discussed the challenge of following infection control protocols with residents with ADRD. They explained that these residents were not able to understand the purpose of wearing PPE, keeping distance from others, or interacting with their

loved ones via technology versus in-person. Some of these residents were then noncompliant with practices to manage the spread of the virus. When outbreaks occurred among residents with ADRD, respondents indicated this was "a nightmare" and led to more fear in staff. Most (83%) administrators from ALCs that offer memory care services indicated staff anxiety as "Moderate", "High", or "Extreme." Due to the particular challenges of working with residents with ADRD, difficulty following infection control protocols may have led to more staff absence due to COVID-19 illness or through the anxiety staff experienced. Staff anxiety is further discussed in a succeeding section.

Staffing Challenges

Exploration of the matrix indicated partial agreement, as well as areas of silence, between quantitative and qualitative results in regard to staffing challenges. While our quantitative results highlight the significance of challenge with staff sent home to comply with COVID-19 precautions and challenge paying staff for time off due to COVID-19 as predictors of staff absence, respondents rarely discussed these challenges. Among the ALCs that administrators indicated on the survey that had "High" or "Extreme" challenge with staff sent home to comply with COVID-19 precautions, less than half (42%) of those administrators discussed how this was a problem within their ALCs in the interviews. Respondents who did mention this challenge mainly focused on how they went about a solution. Two of these administrators discussed the use of agency staff to fill in the gaps of staff absences due to COVID-19 while others discussed how teamwork to cover shifts kept their ALC functioning.

For administrators who were silent in their interviews about the challenge of staff sent home due to COVID, we speculate that their ability to manage the challenge may have influenced their perceptions of its significance, and it did not come to mind during the

interviews. Of the ALCs with "High" or "Extreme" challenge with staff sent home due to COVID, one had an "Inadequate" ability to meet staffing requirements for CNAs/Aides while the rest experienced "Somewhat Adequate" or "Adequate" ability. If administrators experienced staff absence but were still able to cover the shifts and maintain staffing requirements, they may not have perceived staff absence as a challenge during the interviews when further elaborating on the impact of COVID. This partial agreement and silence between the two datasets highlight a difference between challenges experienced with staff absence versus staffing shortages. Greater staff absence from work may not necessarily reflect experience with staff shortages if an ALC was able to cover the shifts. Therefore, even with staff absence, some ALCs were able to maintain their staffing ratios.

An area of silence within the qualitative dataset is the significance of challenge with paying staff for time off due to COVID-19. For ALCs that experienced "Extreme" challenge with staff sent home due to COVID, most also experienced "Extreme" difficulty paying staff for time off due to COVID as indicated on the survey. However, none of the respondents mentioned this challenge of paying staff for time off during the interviews. Some discussed that staff were paid for that time but did not identify it as a challenge. Similar to the partial silence in the qualitative dataset for challenge sending staff home, this may be due to respondents' perceptions of significance, or lack thereof, in paying staff for time off when discussing the staffing challenges COVID-19 presented.

Staff Anxiety

Analysis of the matrix showed high concordance of the two datasets concerning the significance of staff anxiety during COVID-19 but not that this anxiety led to staff absence. Respondents did not speak to how staff anxiety related to their absence. This led to the

interpretation of partial agreement between the datasets on this topic. Many respondents reported some level of anxiety among staff and themselves within the survey and further discussed this in the interviews. Anxiety and fear were frequently mentioned together. However, the quantitative data does not capture fear of COVID. Rather, it asks about the challenge of fear as one reason for staff absence, which most respondents (87%) indicated "None" or "A Little." As a result of high anxiety and fear of the virus, respondents discussed ways in which they handled these emotions, including weekly meetings and resources for staff (e.g., behavioral health program). Some respondents pointed out that even though they did not face any major issues with COVID, they still had anxiety about the potential for issues. This may explain a high level of anxiety indicated on survey responses even when an administrator indicated that other challenges were low.

While anxiety and fear were discussed among respondents, the qualitative data suggests that there are other important emotional reactions to consider with staff during COVID-19. As respondents discussed the difficulties of following infection control protocols with residents with ADRD, some indicated how this caused moral distress among the staff. For example, one respondent who indicated high staff anxiety on the survey spoke to the dilemma of not providing physical touch to residents. They were aware of the guidelines in place to physically distance, but this "was the biggest challenge…how do you cue the environment to bring in the comfort that a hug gives?" In addition to the anxiety experienced by staff about the pandemic (e.g., contracting COVID, infecting others, following proper guidelines), situations of moral distress, such as not being able to provide needed physical touch, were discussed as a separate experience. Therefore, while the survey question about anxiety may partially reflect moral distress, the respondents highlight this dilemma in the interviews as distinct consequences of the pandemic.

Conclusion

The matrix facilitated further understanding about the impact COVID-19 had on ALC staff. This study contributes to the mixed methods literature on staffing and quality in ALCs during the COVID pandemic. We were able to identify areas where the two datasets agreed, areas of partial agreement, and areas of silence. The quantitative and qualitative findings highlight the difficulty staff experienced in working with residents with ADRD. The provision of memory care services significantly predicted staff absence from work, and respondents further emphasized the challenges providing memory care presented to staff and their ALC. While challenge with staff sent home to comply with COVID-19 precautions and paying staff for time off due to COVID-19 were significant predictors of staff absence from work, respondents did not highlight these challenges within their interviews. This may have been due to their ability to manage these challenges, therefore, influencing their perceptions of the impact the challenges had on their ALC. Both datasets agree on the significance of staff anxiety, but the respondents did not discuss staff anxiety as a reason for staff absence from work. Anxiety was discussed as a reaction to the impacts of COVID.

Overall, this dissertation informs areas in need of further investigation, aspects of policies and procedures that need to be considered, and practices for ALC administrators that may benefit staff and staff retention. Research should further investigate structure and process characteristics of ALCs, best practices during times of crises, activities for resident engagement with minimal demand on staff, and moral distress among AL direct care staff. Policymakers should consider the unique challenges of working with residents who have ADRD in creating policies and guidelines during disasters. Administrators should consider their leadership style and how it may influence their staff and work environment. Participating in training or workshops to improve

leadership skills and beneficial practices within AL, such as intrinsic and extrinsic rewards, has the potential to strengthen the sense of community, moral resilience, and staff retention. The knowledge provided by this dissertation contributes to the continuing efforts to improve staffing in AL and to provide high quality of care.

Table

Table 4.1. Mixed Methods Matrix Example

COVID Positivity Rate	size	For profit	ECC or LNS	LMH	Memory Care Offered	Chain Membership	Adequate Staffing of CNAs/ Aides
4.62%	large	1	1	0	1	1	Adequate

Note. COVID = Coronavirus Disease of 2019; ECC = Extended Congregate Care; LNS = Limited Nursing Services; LMH = Limited Mental Health; CNA = Certified Nursing Assistant.

Table 4.1. (Continued). Mixed Methods Matrix Example

Difficulty hiring/ replacing new staff	Staff sent home due to COVID	Difficulty with paying staff time off due to COVID	Consistent Staffing	Leadership Anxiety	Staff Anxiety	Absent Virus Fear	Absent Sick	Absent Family
Extreme	A little	A little	Extensively	Moderate	High	A little	A little	Moderate

Note. These columns represent the continuation of a single row in the Mixed Methods Matrix. COVID = Coronavirus Disease of 2019.

Table 4.1. (Continued). Mixed Methods Matrix Example

Leadership: *Support*	**Leadership:** *Communication*	**Impact on Staff:** *Tasks* - engagement	**Impact on Staff:** *Tasks* - infection control
"Our corporation did something for our nurses that were still there. They went in and did an appreciation thing and then we did something else for the care associates, monetarily. And then we've made a point of just celebrating with them. I made sure, things like when toilet paper was so shortage and paper towels, I would get it and we'd put a care package together for all of our associates to make sure that their family was taken care of."	"I've sat down and individually talked to associates when they had questions and concerns. Our corporation did videos about the pros and cons. We've done everything that we can and I think more and more are going to step up now because we're seeing a little bit more of that."	"We actually introduced, in addition to our Be Fit, which is our physical fitness program, we introduced some meditation and some chair yoga to try to help relieve the stress...We did try to encourage them. We would try to get different things that we could do. And honestly, we tried to engage the staff and the residents to do silly activities that they would probably never do and get creative. One of the things that we noticed we had an increase in, and even in our memory care, is the adult coloring books you've seen that are out there."	"Honestly, that was that hardest part, is not touching. Honestly, we did touch and we tried not to. We tried … but that's why we didn't let the staff work with other residents. They had their team and that's who they worked with because, the end of the day, they're going to come up and hug you and you can't not hug them back. So that was the biggest challenge, I think."

Note. These columns represent the continuation of a single row in the Mixed Methods Matrix.

Table 4.1. (Continued). Mixed Methods Matrix Example

Impact on Staff: *Reactions* - emotional	**Impact on Staff:** *Reactions* - behavioral	**Impact on Retention**
"Honestly, that was that hardest part, is not touching...that would be the biggest thing in memory care, is just how do you cue the environment to bring in the comfort that a hug gives?"	"And one of the things that we ordered was … a gun that you could spray the sanitizing stuff. And it was important in memory care because we could go through, you left it on contact for awhile, so we were able to cover the areas, handrails, everything. So our housekeeping department, along with our maintenance staff and nursing, put together a plan on who did what on each round. And so we were able to just buddy up."	"We lost two caregivers that had been with us for awhile that were really good, but they ran into childcare issues and they just couldn't do it. So they had no one that could help them. Things got shut down. So it was kind of like a trickle effect...Hiring new staff has been difficult, particularly with the assistance programs that went in place financially for them. The staffing market is really challenged right now and it is a direct result of COVID."

Note. These columns represent the continuation of a single row in the Mixed Methods Matrix.

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