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Working experience of certified nursing assistants in the greater New York City area during the COVID-19 pandemic: Results from a survey study

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ABSTRACT

This study aimed to examine the challenges and needs of certified nursing assistants (CNAs) working in nursing homes during the COVID-19 pandemic in the greater New York City area. Between September and November of 2020, a telephone survey was administered and completed by 208 CNAs in the study area about various aspects of their working experience during COVID-19. CNAs reported significant exposure to COVID-19 and experienced additional emotional and financial strain due to the pandemic. CNAs also expressed the influence of COVID-19 on their work schedules and intent to continue working as CNAs, and strong interest in financial support and further training. This study offers empirical insights into the experiences of CNAs working in nursing homes during the pandemic, which are of unique value to inform future efforts to support CNAs and other long-term care providers in general and during public health emergencies in New York and beyond.

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Introduction

In early 2020, a nursing home in Washington state became the first site of a COVID-19 outbreak in the United States. Since then, nursing homes have been under the spotlight as key sites of transmission for the novel coronavirus. More than a year later, 180,000 COVID-19 deaths have been linked to nursing homes nationwide, which is almost a third (31%) of the total COVID-related death count in the United States. Indeed, due to their age, close quarters, and medical and functional status, residents of nursing homes have been particularly vulnerable to COVID-19. This has led to unprecedented challenges for nursing home staff, including certified nursing assistants (CNAs), in maintaining services and keeping themselves and residents safe.

Despite the centrality of nursing homes in the overall trajectory of the COVID-19 pandemic, empirical evidence documenting the perspectives and experiences of nursing home workers is surprisingly limited. Nursing home workers have had to care for vulnerable residents and deal with widespread resident illness and death while navigating their own risks of infection and disease transmission to loved ones. However, a scan of the recent literature shows that there has only been one survey study exploring the experiences of those working in nursing homes in the United States during the pandemic. In that study, the researchers examined the perspectives of different nursing home staff, including administrators and direct care providers, who reported high levels of burnout and constraints on PPE.

Despite being the primary direct care providers in nursing homes, there has been a dearth of information on the experience of CNAs during COVID-19. Numbering 600,000, CNAs comprise the largest percentage of nursing home workers—over three times the number of registered nurses. The role of CNAs is to provide essential, hands-on, 24-hour care that involves both physical and emotional care. Their work includes assisting residents with activities of daily living, such as eating, dressing, toileting, bathing, and ambulating. Accordingly, CNAs spend more time with residents in nursing homes than any other workers. CNAs also serve as emotional companions to their residents, a role that intensified during the pandemic as nursing homes closed to family visitations nationwide.

The work of CNAs is critical to the 1.3 million nursing home residents housed across 15,600 facilities nationwide. Yet, despite being integral for nursing home care, the work performed by CNAs has long...
remained invisible and highly undervalued. The average annual income for a CNA working full time hours in 2020 was $32,050, with 17% living below the federal poverty line. Despite being essential healthcare workers, 20% have no health insurance themselves. Further, CNAs have reported feeling undervalued and ignored, noting that licensed care providers and administrators often leave them out of conversations about care for residents despite the fact that they spend the most time with residents in nursing homes. During the pandemic, these issues have made CNAs more susceptible to financial, emotional, and physical struggles.

The aim of this study was to examine the challenges and resource needs of CNAs working in nursing homes during the COVID-19 pandemic in the greater New York City area, an early epicenter in the United States, and explore opportunities to support CNAs. Understanding the unique experiences and challenges confronting CNAs during COVID-19 will inform efforts to support this essential workforce and the design of protocols safeguarding worker safety and health in general and in the event of future public health emergencies.

Methods

Study design

A cross-sectional design was used to survey CNAs between September 2020 and November 2020. The study was conducted as a partnership between the Ladders to Value Workforce Investment Organization (LTV WIO), the 1199SEIU Home Care Industry Education Fund (hereafter Education Fund), and researchers at academic institutions. LTV WIO was part of a New York State Department of Health initiative designed to deliver job-related training to the long-term care workforce, and the Education Fund is connected to the largest healthcare union in the United States, 1199SEIU United Health Care Workers East. The study was approved as a program assessment study by the institutional review board of Cornell University (IRB #2006009637).

Survey instrument

The academic researchers devised a survey for this study and oversaw the administration. The survey was piloted with 19 direct care workers to assess comprehensibility and was further revised with feedback from program staff at LTV WIO and the Education Fund. The revised and finalized survey included 42 items that were largely closed-ended multiple-choice questions and Likert-style survey questions. Several open-ended questions were also included for participants to provide additional information that might have been inadequately captured. In addition to demographic questions, the survey was organized into five sections that served to capture challenges and resource needs of CNAs during the pandemic: 1) COVID-19 exposure, risk, and resources; 2) general mental and emotional wellbeing; 3) work schedules, financial challenges, and career outlook; 4) interest in resources for meeting basic needs; and 5) training interest and needs.

Sample and data collection

The study population was CNAs in the greater New York City area, including New York City, Long Island, and the Lower Hudson Valley. To be eligible, CNAs had to be currently employed in a licensed nursing home, enrolled in a course through the Education Fund within the past two years, and able to answer the survey in English.

Potentially eligible participants were contacted by telephone and assessed for eligibility via an established script. Verbal informed consent was obtained after explanation of the study purpose and before any data collection. Participant answers were de-identified and recorded by survey administrators in Qualtrics, a widely used survey platform. Surveys took, on average, about 20 minutes to complete.

Our approach of administering surveys via telephone calls significantly reduced the risk of missing data. In total, 1185 workers were contacted to participate in the study, of which many expressed willingness to participate in the study but were not able to complete the survey during the initial phone call due to other duties (e.g., at work) or before the closure of the survey. Over a three-month period, 208 CNAs working at 98 unique nursing homes completed the survey.

Analysis

Data were downloaded from Qualtrics and imported into Stata version 16.1 (StataCorp LP) for all analysis. We first described the characteristics of participants such as age, gender, race/ethnicity, and work tenure. We then conducted descriptive analysis and used frequencies and percentages to summarize the working experience and challenges of CNAs during COVID-19, including emotional and financial issues and access to PPE and other COVID-19 specific resources.

Results

Of the 208 CNAs included in the study, 93% were female, over half (62.5%) were between 40-59 years of age, and most were individuals of color: 87.3% were black, 3.1% were Latinx, and 4.6% were Asian. Most CNAs (77.6%) reported being the sole income earner in the household and over one-third reported providing additional financial support for at least one family member (e.g., child, parent, or sibling). A detailed breakdown of demographic characteristics is presented in Table 1.

COVID-19 Exposure, Risk, and Relevant Resources

The CNAs who were surveyed reported high rates of COVID-19 exposure, with 80.1% of CNAs reporting having contact with a resident with a known/suspected case of COVID-19 illness (Table 2). A majority of CNAs (80.6%) reported having enough access to PPE during the pandemic (with 32.6% having to provide their own), 91.1% indicated that their supervisor provided them with COVID-19 updates, and 66.1% “very strongly agreed” that they could reach their supervisor with questions about COVID-19. Still, three in four CNAs (75%) reported being “very concerned” with being exposed to COVID-19 at work, 85.9% reported being “very concerned” with exposing a loved one due to their work, and 79.7% were “very concerned” with exposing a resident because of the work they do. Notably, over 30% of CNAs experienced COVID-19 symptoms and 32.3% of those who were tested reported that they had a positive test between the beginning of COVID-19 and the time of the survey.

The majority also indicated that they were “very interested” in further online training on topics related to resident care and navigating the pandemic environment, including promoting behavior change in residents (55.1%), trauma-informed care (54.6%), and training residents with COVID-19 (51.5%), and training on workplace safety during the pandemic (50.8%).

General emotional and mental wellbeing

Caring for residents during the COVID-19 pandemic impacted CNAs’ emotional wellbeing beyond physical health (Table 3). Nearly half (46.8%) of CNAs reported that COVID-19 made taking care of their mental and physical health harder. The majority of CNAs (60.6%) reported feeling emotionally drained from work at least once a week, and 50.6% reported feeling fatigued at least once a week upon waking up. In addition, almost all CNAs (91.3%) experienced a death of a resident in their nursing home or unit at the time of the survey. Despite these emotional and mental health issues, 58.5%
reported that they received no resources for processing and dealing with grief. At the same time, half of CNAs (49.5%) indicated a strong interest (“very interested”) in access to online training on coping with grief and loss and 57.2% said they would be very interested in training on stress management. Additionally, over half of CNAs (52.8%) indicated that referrals for support dealing with stress and anxiety would be “very helpful.”

**Work schedules and long-term career outlook**

COVID-19 affected CNAs’ work schedules (Table 4), as 29.8% expressed that they had to take time off due to the pandemic (i.e., because of COVID-19 exposure or positive case), of which 26.3% reported that their time off was unpaid. Well over half (56.1%) indicated that referrals for accessing paid sick leave would be “very helpful.” The pandemic appeared to have a mixed impact on CNAs’ long-term career outlook as 17.9% indicated they would be less likely to continue in the nursing home industry while 20.4% indicated they would be more likely to do so.

**Financial challenges and meeting basic needs**

Interest in referrals for resources to meet basic needs point to the financial challenges facing survey participants. Nearly two thirds of participants (61.3%) reported that referrals for accessing affordable housing would be “very helpful,” 58.8% reported that referrals for help paying for food would be “very helpful,” and 52.8% reported that referrals for help paying for transportation to work would be “very helpful.” The survey results also indicate that financial insecurity became more acute for many participants during the pandemic, with

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**Table 1**

Participant Demographics (N=208)

| Variable                                   | Certified Nursing Assistants | N   | %  |
|--------------------------------------------|------------------------------|-----|----|
| Age                                        |                              |     |    |
| 20-29                                      | 12                           | 5.5%|    |
| 30-39                                      | 31                           | 15.0%|  |
| 40-49                                      | 64                           | 31.0%|  |
| 50-59                                      | 68                           | 32.5%|  |
| 60-69                                      | 31                           | 15.0%|  |
| 70+                                        | 2                            | 1.0% |  |
| Gender/Female                              |                              |     |    |
| Black                                      | 182                          | 87.3%|  |
| Latina                                     | 6                            | 3.1%  |  |
| Asian                                      | 10                           | 4.6%  |  |
| White                                      | 3                            | 1.5%  |  |
| Other                                      | 7                            | 3.6%  |  |
| Educational attainment                     |                              |     |    |
| Grades 9-11 (some high school)             | 12                           | 5.7%  |  |
| Grade 12 or GED (high school graduate)     | 105                          | 50.5% |  |
| College 1-3 years (some college or technical school) | 172  | 34.4% |  |
| College 4 years or more (college graduate) | 17                           | 8.3%  |  |
| Post college degree                        | 2                            | 1.0%  |  |
| Tenure in the healthcare field             |                              |     |    |
| 1-3 years                                  | 5                            | 2.5%  |  |
| Between 3 and 5 years                      | 16                           | 7.4%  |  |
| Between 5 and 10 years                     | 62                           | 29.9% |  |
| More than 10 years                         | 125                          | 60.3% |  |
| Solo income earner in household/Yes        | 161                          | 77.6% |  |
| Have children/Yes                          | 182                          | 87.6% |  |
| Provide care or financial support to children not yet in school/Yes | 20  | 9.6%  |  |
| Provide care or financial support to school-aged children (<18)/Yes | 93  | 44.7% |  |
| Provide care or financial support to adult children/Yes | 72  | 34.6% |  |
| Provide care or financial support to parents or siblings/Yes | 65  | 31.3% |  |

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**Table 2**

COVID-19 Exposure, Risk, and Relevant Resources (N=208)

| Variable                                          | Certified Nursing Assistants | N   | %  |
|----------------------------------------------------|------------------------------|-----|----|
| Provided direct care to a patient with known/suspected Covid-19 |                             |     |    |
| Yes                                                | 167                          | 80.1% |  |
| No                                                 | 16                           | 7.9%  |  |
| Unsure                                              | 25                           | 12.0% |  |
| Had symptoms associated with Covid-19              |                              |     |    |
| Yes                                                | 66                           | 31.7% |  |
| No                                                 | 139                          | 66.8% |  |
| Unsure                                              | 3                            | 1.4%  |  |
| Been tested for Covid-19/Yes                       |                             |     |    |
| Yes                                                | 192                          | 92.3% |  |
| Strongly agree                                      | 137                          | 66.1% |  |
| Agree                                               | 51                           | 24.3% |  |
| Disagree                                            | 18                           | 8.5%  |  |
| Strongly disagree                                   | 2                            | 1.0%  |  |
| Supervisor has been providing Covid-related updates |                             |     |    |
| Strongly agree                                      | 134                          | 64.6% |  |
| Agree                                               | 55                           | 26.5% |  |
| Disagree                                            | 17                           | 7.9%  |  |
| Strongly disagree                                   | 2                            | 1.1%  |  |
| Concern about exposure to Covid-19 at work         |                              |     |    |
| Very concerned                                      | 156                          | 75.0% |  |
| Somewhat concerned                                  | 25                           | 12.0% |  |
| A little concerned                                  | 6                            | 3.1%  |  |
| Not at all concerned                               | 19                           | 8.9%  |  |
| Unsure                                              | 2                            | 1.0%  |  |
| Concern about enduring patients due to exposure at work |                             |     |    |
| Very concerned                                      | 166                          | 79.7% |  |
| Somewhat concerned                                  | 16                           | 7.8%  |  |
| A little concerned                                  | 8                            | 3.7%  |  |
| Not at all concerned                               | 16                           | 7.8%  |  |
| Unsure                                              | 2                            | 1.0%  |  |
| Concern about enduring loved ones due to exposure at work |                             |     |    |
| Very concerned                                      | 179                          | 85.9% |  |
| Somewhat concerned                                  | 11                           | 5.2%  |  |
| A little concerned                                  | 2                            | 1.0%  |  |
| Not at all concerned                               | 14                           | 6.8%  |  |
| Unsure                                              | 2                            | 1.0%  |  |
| Interest in online training on workplace safety during pandemic | |         |    |
| Very interested                                     | 106                          | 50.8% |  |
| Strongly interested                                 | 49                           | 23.6% |  |
| A little interested                                 | 4                            | 2.1%  |  |
| Not at all interested                              | 33                           | 16.9% |  |
| Not sure                                           | 16                           | 7.7%  |  |
| Interest in online training on treating patients with Covid-19 | |         |    |
| Very interested                                     | 107                          | 51.5% |  |
| Strongly interested                                 | 43                           | 20.6% |  |
| A little interested                                 | 7                            | 3.4%  |  |
| Not at all interested                              | 37                           | 18.0% |  |
| Not sure                                           | 14                           | 6.7%  |  |
| Interest in online training on trauma-informed patient care | |         |    |
| Very interested                                     | 114                          | 54.6% |  |
| Strongly interested                                 | 42                           | 20.1% |  |
| A little interested                                 | 6                            | 3.1%  |  |
| Not at all interested                              | 30                           | 14.4% |  |
| Not sure                                           | 16                           | 7.7%  |  |
| Interest in online training on promoting patient behavior change | |         |    |
| Very interested                                     | 115                          | 55.1% |  |
| Strongly interested                                 | 37                           | 18.0% |  |
| A little interested                                 | 9                            | 4.1%  |  |
| Not at all interested                              | 32                           | 15.5% |  |
| Not sure                                           | 15                           | 7.2%  |  |
aimed at better supporting CNAs. Protocols during public health emergencies and for general policies the CNA workforce. Thus, our support could potentially improve the wellbeing and sustainability of also demonstrated areas where additional safety, emotional wellbeing, experience during COVID-19,3,10,11,12 our study is the first to investi-...g. Our study also demonstrated areas where additional financial and emotional support could potentially improve the wellbeing and sustainability of the CNA workforce. Thus, our findings have implications for future protocols during public health emergencies and for general policies aimed at better supporting CNAs.

In the long-term care setting, CNAs and other care providers are often beset with emotional struggles due to the nature of their work, including frequent deaths of residents that they have worked with for an extended time,10,13-15 challenges that have only become more acute during the COVID-19 pandemic.15 Most of the CNAs we surveyed did not receive workplace support for dealing with grief even though more than 9 in 10 indicated experiencing a death on their unit or nursing home during the pandemic, and an overwhelming majority reported feeling fatigued or emotionally drained at least once a week. Additionally, while there have been studies on programs about coping with grief for other frontline workers such as home health aides,16 there is a paucity of research on training programs for CNAs dealing with workplace grief. In light of these patterns, it is imperative not to leave CNAs behind in discussions about post-COVID-19 grief. Improvements in on-site emotional programs for CNAs dealing with workplace grief. In light of these

| Table 3 | General Emotional and Mental Wellbeing (N=208) |
|------------------|------------------|------------------|------------------|
| Covid-19 impact on taking care of physical and mental health? | Certified Nursing Assistants | N | % |
| Made it harder or a lot harder | 97 | 46.8% |
| Made no difference | 103 | 49.3% |
| Made it easier or a lot easier | 8 | 4.0% |
| How often feel emotionally drained from work | | | |
| Every day | 59 | 28.4% |
| At least once a week | 67 | 32.6% |
| A least once a month | 41 | 19.5% |
| A few times a year | 1 | 0.5% |
| Never | 40 | 19.0% |
| How often feel fatigued when get up in the morning | | | |
| Every day | 42 | 20.2% |
| At least once a week | 63 | 30.4% |
| At least once a month | 28 | 13.3% |
| A few times a year | 1 | 0.5% |
| Never | 74 | 35.6% |
| Experienced death of patients/residents in unit or nursing home | Yes, in my unit | 120 | 57.8% |
| Yes, not in my unit but in a nursing home where I work | 70 | 33.5% |
| No | 18 | 8.7% |
| Services available to provide support in grieving process | No | 122 | 58.5% |
| Yes | 66 | 31.5% |
| Interest in online training on coping with grief and loss | Very interested | 103 | 49.5% |
| Somewhat interested | 33 | 15.9% |
| A little interested | 7 | 3.4% |
| Not at all interested | 51 | 24.7% |
| Not sure | 14 | 6.7% |
| Interest in online training on stress management | Very interested | 119 | 57.2% |
| Somewhat interested | 28 | 13.4% |
| A little interested | 9 | 4.3% |
| Not at all interested | 43 | 20.6% |
| Not sure | 9 | 4.3% |
| Referrals for support dealing with stress and anxiety would be... | Very helpful | 110 | 52.8% |
| Somewhat helpful | 25 | 12.1% |
| A little helpful | 5 | 2.5% |
| Not at all helpful | 58 | 27.6% |
| Not sure | 10 | 5.0% |
| Changes in hours during pandemic | Less likely | 37 | 17.9% |
| More likely | 43 | 20.4% |
| Unknown | 9 | 4.5% |
| Impact of pandemic on wanting to continue in the industry | Made it harder or a lot harder | 99 | 47.8% |
| Made no difference | 108 | 51.8% |
| Made it easier or a lot easier | 1 | 0.5% |
| Referrals for help paying for food, housing, other basic needs? | Very helpful | 110 | 52.8% |
| Somewhat helpful | 25 | 12.1% |
| A little helpful | 5 | 2.5% |
| Not at all helpful | 58 | 27.6% |
| Not sure | 10 | 5.0% |
| Referrals for help accessing affordable housing would be... | Very helpful | 128 | 61.3% |
| Somewhat helpful | 17 | 8.0% |
| A little helpful | 5 | 2.5% |
| Not at all helpful | 52 | 25.1% |
| Not sure | 6 | 3.0% |
| Had to take time off from work because of pandemic | No | 121 | 58.1% |
| Yes, because tested positive for or had symptoms of Covid-19 | 56 | 26.7% |
| Yes, because exposed to a patient had/ may have had Covid-19 | 6 | 3.1% |
| Yes, other reason | 25 | 12.0% |
| No | 121 | 58.1% |
| Among those taking time off, those who... | Took unpaid time off | 23 | 26.3% |
| Took paid time off | 61 | 70.0% |
| Applied for but unable to receive unemployment benefits | 1 | 1.3% |
| Unknown | 2 | 2.4% |

Table 4

| Table 4 | Work schedule during COVID-19 pandemic, long-term career outlook, and financial challenges (N=208) |
|------------------|------------------|------------------|------------------|
| Changes in hours during pandemic | Unknown | 2 | 2.4% |
| Impact of pandemic on wanting to continue in the industry | More likely | 43 | 20.4% |
| Less likely | 37 | 17.9% |
| Hasn't made a difference | 119 | 57.2% |
| Not relevant/Other | 9 | 4.5% |
| Covid-19 impact on paying for food, housing, other basic needs? | Made it easier or a lot easier | 1 | 0.5% |
| Referrals for help paying for transport to work would be... | Very helpful | 110 | 52.8% |
| Somewhat helpful | 25 | 12.1% |
| A little helpful | 5 | 2.5% |
| Not at all helpful | 58 | 27.6% |
| Not sure | 10 | 5.0% |
| Referrals for help accessing affordable housing would be... | Very helpful | 128 | 61.3% |
| Somewhat helpful | 17 | 8.0% |
| A little helpful | 5 | 2.5% |
| Not at all helpful | 52 | 25.1% |
| Not sure | 6 | 3.0% |
| Referrals for help paying for food would be... | Very helpful | 123 | 58.8% |
| Somewhat helpful | 25 | 12.1% |
| A little helpful | 7 | 3.5% |
| Not at all helpful | 48 | 23.1% |
| Not sure | 5 | 2.5% |
| Referrals for help accessing paid sick leave would be... | Very helpful | 117 | 56.1% |
| Somewhat helpful | 18 | 8.6% |
| A little helpful | 5 | 2.5% |
| Not at all helpful | 59 | 28.3% |
| Not sure | 9 | 4.6% |

47.8% reporting that COVID-19 made it “harder” or “a lot harder” to afford basic needs (e.g., food and housing) (Table 4).

Discussion

The current study examined the needs and experiences of CNAs who provided care in an early epicenter of the COVID-19 pandemic in the United States: the greater New York City area. In addition to expanding upon existing research on front-line healthcare workers' experience during COVID-19,3,10,11,12 our study is the first to investigate the impact that the pandemic had on CNAs' own health and safety, emotional wellbeing, finances, and career outlook. Our study also demonstrated areas where additional financial and emotional support could potentially improve the wellbeing and sustainability of the CNA workforce. Thus, our findings have implications for future protocols during public health emergencies and for general policies aimed at better supporting CNAs.
Our findings also speak to the financial hardship experienced by this workforce. CNAs are predominantly women and disproportionately people of color and immigrants,20 which contributes to the undervaluation of the workforce and the persistence of low pay. The average annual salary of a CNA in the United States is $32,050,6 and we found that 77.6% of the CNAs we surveyed are the sole income earners of their family, with at least one-third providing financial support to one or more family members. The survey results on CNAs’ interest in referrals for support paying for transportation, housing, and food further confirmed the financial hardship confronting many in this workforce due to low compensation in general. Our results also suggest that the pandemic might have enhanced the underlying financial hardship. We found that while the majority of CNAs in this study reported having contact with a patient with known/suspected case of COVID-19 and nearly one-third experienced COVID-19 symptoms, they had very limited access to paid leave. In addition, nearly half indicated that COVID-19 made it more difficult to afford basic needs (e.g., housing and food).

There are several possible reasons that explain why COVID-19 might have exacerbated financial challenges in this population. One of the reasons is that among CNAs working in our study area, the greater New York City Area, the majority of them, if not all of them, use the subway and other public transportation to get around. During the height of the pandemic, many people (including healthcare workers such as CNAs) felt uncomfortable using public transportation. For CNAs, who have persistently had financial difficulties, we could infer then that any additional expenses related to a private transportation option, like Uber, to get to work would pose financial changes to meet other basic needs. Another possibility is that a lot of people lost work due to COVID-19, among whom it might include family members of CNAs. Our study did find that a large number of CNAs reported they were the main source of income for their family. Therefore, CNAs, though some of them worked more hours during the pandemic as reflected by our findings, might have been using extra funds to compensate for any lost within their family unit. As aforementioned, it also worth noting that many of the CNAs in our study reported no access to paid sick leave and one-third of CNAs in our survey reported a positive COVID-19 test. In other words, many of the CNAs had to take days off due to COVID-19, and maybe other illnesses, without payment. Other reports have indicated that financially CNAs could not afford sick days.21 These financial implications are likely to impact their ability to afford food and housing. They also point to the importance of improving compensation for CNAs to match the critical contributions they make within the long-term care system. Recently, New York State took its first step to do so by passing a bill in April 2021 requiring that 40% of aggregate revenue per fiscal year, from private and public payers, go towards paying for nursing care personnel starting January 1, 2022.22 This development may lead to improvements in pay for CNAs.

Finally, our results speak to challenges related to retention of CNAs. Despite the rapid increase in the number of older adults needing long-term care, it is well known that under-staffing and high turnover has plagued nursing homes long before COVID-19.4,23,24 This is particularly concerning given the documented linkage between understaffing and poorer quality outcomes and delayed or omitted care.25 Previous research has found that low pay24,26-28 and being overworked29 are important factors causing many CNAs to leave the industry. Our results showed varied impacts of the pandemic on the career outlook of the CNAs who were surveyed, but it is notable that nearly one-fifth of participants said that they would be less likely to remain in the industry following the pandemic. In addition to the physical risks, emotional burdens, and financial hardship that we documented, overwork and a lack of paid sick leave might also contribute to CNAs’ intent to leaving the long-term care industry.21 Indeed, our results indicated that over a quarter (26.3%) of CNAs reported working more hours during the pandemic and more than one-fourth (26.3%) of CNAs had to take unpaid time off. At the same time, a majority reported that referrals for paid sick leave would be “very helpful.” This accords with other reports that only 9% of nursing home staff experienced an increase in paid sick leave or time off during the pandemic.22 Access to paid sick leave could also be critical in reducing hesitancy towards COVID-19 vaccination among CNAs, who may be concerned that side effects from vaccination would lead to losing a workday or two, which are not affordable to many of them.31

**Limitations**

This study has limitations that should be mentioned. First, this study only included unionized CNAs in New York, so the results are not generalizable to non-unionized CNAs and/or CNAs in other geographical areas. Second, our study also might have underestimated the challenges CNAs faced during the pandemic as our sample often have better support and resources than non-unionized CNAs. Third, though we conducted the survey during the pandemic, it was about 6 months after the start of this pandemic. Therefore, some of the answers were subject to recall bias as they were self-reported. Lastly, due to the descriptive nature of the study, though our study highlighted the impact of COVID-19 on the financial needs of CNAs, we were not able to quantify this impact, which warrants future investigation.

**Implications**

The study results lend themselves to several implications for improving the future of long-term care and the working experiences of CNAs in nursing homes. First, improving pay is a critical next step. Our findings support local and national legislation advocating for increased financial compensation for CNAs. As aforementioned, New York State is already pushing for a reallocation of nursing home income to be directed towards the care workers rather than blind profit. Second, in the short term it is crucial to implement accessible mental and physical health resources for CNAs for the current pandemic, such as access to licensed therapists or an incorporation of interdisciplinary debriefing sessions in light of increased grief. This would support CNAs who work in environments where resident death is not unusual and serve as a precedent in the case of any future public health crises. Third, paid sick leave is an important next step given the incredibly high percentage of respondents who reported a positive COVID-19 test and had to take time off from work. Paid sick leave not only promotes financial equity for healthcare workers but also helps ensure low disease transmission as CNAs would be more comfortable taking the time off, if sick, knowing that it would not be a missed day of pay. Four, our results show a need for increased training and PPE for CNAs. Our results show that the majority of CNAs are interested in receiving more training on caring for residents in their nursing home. An increase in understanding of how to care for residents alongside guaranteed access to PPE contributes to combating viral transmission and improving worker satisfaction and resident outcomes.

**Conclusion**

This study provided empirical evidence on the experiences of CNAs working in nursing homes during the COVID-19 pandemic. It also explored how this workforce can be better supported. Physical risks, emotional struggles and financial difficulties were validated and insight into the intentions of CNAs to stay in or leave the industry was illustrated. To promote the wellbeing of CNAs and ensure the stability of this workforce into the future, policies and resources should...
be directed towards improving pay and benefits and increasing the availability of mental health services.

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**Declaration of Competing Interest**

None.

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