RESEARCH PAPER

Frequency of Neglect and Its Effect on Mortality in Long-Term Care before and during the COVID-19 Pandemic

Fréquence de la négligence et son effet sur la mortalité dans les établissements de soins de longue durée avant et pendant la pandémie de COVID-19

NOORI AKHTAR-DANESH, PhD
Associate Professor of Biostatistics
School of Nursing
McMaster University
Hamilton, ON

ANDREA BAUMANN, RN, PhD, FAAN, CM
Associate Vice-President, Global Health
Global Health Office
McMaster University
Hamilton, ON

MARY CREA-ARSENIO, MSc, PhD(c)
Senior Research Analyst
Global Health Office
McMaster University
Hamilton, ON

VALENTINA ANTONIPILLAI, PhD
Postdoctoral Fellow
Global Health Office
McMaster University
Hamilton, ON

Abstract

Neglect of vulnerable adults living in long-term care (LTC) homes has been well documented. It often presents first in the physical symptoms of decubitus ulcers, dehydration and urinary tract infections (UTIs). A retrospective cohort study was conducted to examine

the relationship between neglect and 90-day mortality among LTC residents in Ontario. An index of neglect was created. Of 106,765 residents, more than one-quarter were found to have at least one indicator of neglect: 13.1% had decubitus ulcers, 13.5% had dehydration, 6.2% had a UTI. Residents who exhibited clinical signs of neglect had higher risks of death within 90 days, both before and during the COVID-19 pandemic.

Résumé

La négligence des adultes vulnérables vivant dans des foyers de soins de longue durée (SLD) est bien documentée. Elle se présente souvent d'abord par les symptômes d'ulcères de décubitus, de déshydratation et d'infections des voies urinaires (IVU). Une étude de cohorte rétrospective a été menée pour examiner la relation entre la négligence et la mortalité à 90 jours chez les résidents des SLD en Ontario. Un indice de négligence a été créé. Sur 106 765 résidents, plus d'un quart présentaient au moins un indicateur de négligence : 13,1 % avaient des ulcères de décubitus, 13,5 % avaient une déshydratation, 6,2 % avaient une IVU. Les résidents qui avaient des signes cliniques de négligence présentaient des risques plus élevés de décès dans les 90 jours, et ce, tant avant que pendant la pandémie de COVID-19.

Introduction

Neglect of vulnerable adults living in care homes has been documented in many countries (WHO 2021). The World Health Organization (WHO) identifies neglect as one of five main types of abuse, which occurs more frequently in long-term care (LTC) compared with community settings (WHO 2021). In Canada, the National Initiative for the Care of the Elderly (NICE) defines neglect as the "[r]epeated deprivation of assistance needed by the older person for activities of daily living" (NICE 2012: 99). Acts of neglect can be intentional or unintentional, whereby active neglect is perpetrated by purposefully withholding care and basic needs and passive neglect results from inadvertently failing to provide care due to a lack of knowledge, experience or ability (RNAO 2014).

LTC residents are at risk of neglect because many individuals face complex care needs, resulting in physical and cognitive decline and increasing reliance on care providers for daily living. Functional impairment and poor health have been shown to be associated with greater risk of abuse and neglect among older adults (Acierno et al. 2010; Amstadter et al. 2011; Burnes et al. 2015; Lowenstein et al. 2009; Pillemer and Finkelhor 1988; Podnieks 1992). In the province of Ontario, neglect is defined under *O. Reg. 79/10*, section 5 of the *Long-Term Care Homes Act, 2007*, as "the failure to provide a resident with the treatment, care, services or assistance required for health, safety or well-being and includes inaction or a pattern of inaction that jeopardizes the health, safety or well-being of one or more residents" (Government of Ontario 2011: 70).

While its legislative definition is comprehensive, neglect among older adults in LTC is difficult to identify and, thus, quantify or measure. As Collins (2006) notes, "many entities can mimic elder neglect, and many age-related changes can result in pathology that may be

confused with maltreatment" (p. 157). Furthermore, neglect is often underreported because residents may be dependent on abusive caregivers and are fearful to disclose incidents of neglect in case of retaliation or negative experiences (Hayley et al. 1996; LoFaso and Rosen 2014). As a result, several studies have used various clinical indicators as measures of the presence of neglect (Akaza et al. 2003; Choi and Mayer 2000; Cooper et al. 2006; Ogioni et al. 2007). These clinical signs and symptoms differ across studies not only due to the ambiguity involved in identifying neglect and the hidden nature of older adults' experiences of neglect but also due to the lack of timely data on clinical signs of neglect. Although neglect is difficult to characterize and is measured in various ways, it has been associated with adverse health outcomes, such as increased hospitalizations and mortality (Friedman et al. 2017; Powers 2014).

Only a few studies have examined a composite index of neglect (Friedman et al. 2017; Fulmer and Ashley 1989). Friedman and colleagues (2017) developed a clinical signs of neglect scale (CSNS) in the US based on clinical signs identified in the literature and by experts in older adult care provision. The authors noted that more research is needed to comprehensively analyse the validity of the scale and improve inter-rater reliability. Fulmer and Ashley (1989) conducted an exploratory factor analysis to test the construct validity of items on an abuse assessment instrument related specifically to neglect, and determined that skin alterations, nutritional deficits and bowel/urinary incontinence were three key constructs of neglect among older adults. Several research studies demonstrate that these constructs, realized as the presence of decubitus ulcers (pressure ulcers), dehydration and urinary tract infections (UTIs), encompass clinical signs of neglect for older adults (Clarysse et al. 2018; Cooper et al. 2006; Dyer et al. 2003; Friedman et al. 2017; Himmelstein et al. 1983; Powers 2014).

Pressure ulcers, dehydration and recurrent UTIs are preventable, yet are prevalent within institutional care settings (Collins 2006; Friedman et al. 2017; Gibbs 2014; LoFaso and Rosen 2014; Powers 2014). Evidence suggests pressure ulcers can be avoided through proper hygiene, systematic risk assessment and regular repositioning (Lyder and Ayello 2008; Yap et al. 2018). According to Bunn et al. (2019) low-intake dehydration can be prevented if residents are presented with, and in some cases assisted in drinking, adequate amounts of fluid. Recurrent UTIs can be avoided if residents receive a timely diagnosis and treatment (Nace et al. 2014). Genao and Buhr (2012) suggest that clinicians often experience challenges in diagnosing UTIs among residents due to communication barriers (especially among patients diagnosed with dementia and stroke), as well as a high prevalence of chronic genitourinary symptoms such as incontinence, urgency, frequency, and nocturia. In addition, there is a lack of a gold-standard laboratory test to confirm clinical suspicion of UTI. Although pathophysiological changes typify aging, clinical symptoms can be documented as signs of neglect (Collins 2006; Friedman et al. 2017; LoFaso and Rosen 2014).

Several government task forces, research and media reports have brought attention to the significant experiences of neglect that residents of LTC homes have been facing for

decades (Charpentier and Soulières 2013; Long-Term Care Task Force on Resident Care and Safety 2012; Keefe et al. 2018; Russell 2020). These protracted situations of neglect received national attention as record numbers of residents died following the COVID-19 pandemic, during which neglect and abuse of older adults were increasingly exposed (Beattie and Reddekopp 2021; CAF JTFC 2020; Howlett 2021). The stressful circumstances placed on residents and their caregivers during the pandemic may have increased the potential for perpetrating acts of neglect given the isolated environments and stressful working conditions faced by residents and caregivers in the sector, respectively. This study aims to determine the incidence of neglect defined by the presence of pressure ulcers, dehydration and UTIs and assess the association between neglect and 90-day mortality of LTC residents before and during the pandemic in the province of Ontario.

Materials and Methods

Data sources

A retrospective cohort study using administrative resident-level databases was conducted. The analysis focused on LTC residents in Ontario from January 2019 to December 2020. Population-based health administrative data sets from ICES and the Resident Assessment Instrument – Minimum Data Set (RAI-MDS) 2.0 were accessed. The RAI-MDS (CIHI 2011) contains information on clinical, functional and psychosocial characteristics of residents. Resident demographic and mortality data were obtained through the Registered Persons Database (RPDB). COVID-19 data were obtained from the Ontario Laboratories Information System (OLIS), which includes infection test data from hospitals, commercial laboratories, provincial public health laboratories and assessment centres. All records used were de-identified and anonymized, as they were linked across data sets via unique encoded identifiers.

This study included all residents of LTC homes in Ontario aged 65 years and older (residents younger than 65 years of age were excluded from this study). Residents without a COVID-19 test in their records were also excluded because their COVID-19 infection status was not known. The age groups for residents were coded as 65–69, 70–74, 75–79, 80–84, and ≥ 85 years. An index of neglect was created using three variables: presence of pressure ulcer, insufficient fluid (none consumed in the previous 3 days) or overall dehydration and UTI in the last 30 days (See Appendix 1: Table A4 for definitions) (Appendix 1 is available online at www.longwoods.com/content/26851).

For each resident in the study, the following variables were included in the analysis: result of last COVID-19 test (positive or negative, from March 2020); region of Ontario (Central, Southwest, East, North) where the LTC home is located; income quintile based on postal code of the LTC home; frailty index (classified as robust, pre-frail, frail); ownership category of the LTC home (municipal, non-profit, for-profit); and Changes in Health, End-stage disease, Symptoms and Signs (CHESS) co-morbidity score. The income quintile was

coded as 1 (lowest income level) to 5 (highest income level). The CHESS score values range from 0 (no instability in health) to 5 (high unstable health).

This project was approved by the ICES Privacy and Legal Office. ICES is a prescribed entity under section 45 of Ontario's *Personal Health Information Protection Act* (2004). Section 45 authorizes ICES to collect personal health information, without consent, for the purpose of analysis or compiling statistical information with respect to the management of, evaluation or monitoring of the allocation of resources or planning for all or part of the health system. Projects conducted under section 45, by definition, do not require informed consent.

Statistical analysis

Descriptive statistics were used to describe the sample characteristics. Summary statistics were reported as mean and standard deviation (SD) for the only continuous variable (CHESS co-morbidity score) and as frequency and percentage for categorical variables (for all other variables, please see Table 1). An independent two-sample test was used to compare CHESS co-morbidity scores between neglected and not neglected groups. A Chi-squared test was used to compare different levels of each categorical variable based on neglect status. We used a backward logistic regression analysis with a significance level of $\alpha = 0.05$ to investigate the association between death within 90 days of assessment and neglect and each of its three components, separately, while adjusting for the other variables. Less than 1% of some variables were missing, and a casewise deletion approach was used in analysis. All statistical analyses were conducted using Stata/MP 15.1 (Stata Corporation, College Station, TX).

Results

There were 106,765 residents 65 years of age and older living in Ontario's long-term care homes from January 2019 to December 2020. Of these older adults, 30.75% (n = 32,832) were assessed pre-COVID (between January 2019 and February 2020), while 69.25% (n = 73,933) were assessed during COVID (between March 2020 and December 2020). Over one-quarter (27%) of residents had at least one identified indicator of neglect: 13.1% had decubitus ulcers, 13.5% had dehydration and 6.2% had a UTI.

There was no difference in the rate of neglect based on sex (p = 0.178). Residents 85 years of age and older and frail were more likely to have at least one of the three indicators of neglect than those who were younger and less frail. There was a significant association between age group and rate of neglect ($p < 0.0001$). Rate of neglect was 21.4% (n = 1,175) among the youngest age group (65–69 years) but increased to 29.6% (n = 17,832) among those over 85 years (Table 1). Also, rate of neglect significantly increased based on frailty status of the residents: it was only 8.2% (n = 726) in the robust group but increased to 33.8% (n = 24,677) in the frail group ($p < 0.0001$). Approximately 31% (n = 6,739) of residents living in municipal homes, 28.2% (n = 7,980) of those living in not-for-profit and 26.1% (n = 14,760) of individuals residing in for-profit facilities presented with signs of neglect in

our sample. A higher proportion of residents exhibited clinical signs of neglect if they lived in a facility located in rural settings (29.5%; n = 4,109) compared with urban areas (27.3%; n = 25,154) or if the home was situated in the northern (33.0%; n = 4,444) or southwestern (32.0%, 11,630) regions of the province. Most notably, 50.6% (n = 10,746) of residents who died within 90 days of their assessment displayed signs of neglect, whereas only 21.9% (n = 18,592) of surviving residents were observed to have signs of neglect (Table 1).

In adjusted logistic regression models examining the relationship between neglect and resident mortality, our analysis shows that prior to COVID-19, individuals residing in LTC homes who exhibited clinical signs of neglect had 55% (odds ratio [OR] 1.55, 95% confidence interval [CI]: 1.46, 1.64) higher risk of death within 90 days of their last assessment compared with residents who did not experience neglect. Other notable risk factors for 90-day mortality prior to COVID-19 included advanced age (OR = 1.61, 95% CI: 1.38, 1.88) and pre-frail (OR = 2.41, 95% CI: 2.06, 2.82) or frail status (OR = 4.21, 95% CI: 3.63,4.89). For each unit increase in the CHESS score, the odds of death increased by 2.06 (95% CI: 2.01, 2.10). Women had 26% decreased odds of death compared to men (OR = 0.74, 95% CI: 0.70, 0.78). Residents living in rural communities, in facilities located in the southwestern and eastern regions of Ontario and within non-profit and for-profit homes had lower odds of mortality compared with individuals living in urban areas, facilities in the central region and municipal homes, respectively (Table 2).

TABLE 1. Characteristics of LTC residents 65 years of age and older in Ontario, from the Continuing Care Reporting System, January 2019 to December 2020

Characteristic	Not neglected n = 77,286	(%)	Neglected n = 29,479	(%)	Total	p value
Age group						
65–69	4,316	78.6	1,175	21.4	5,491	< 0.0001
70–74	6,638	76.4	2,055	23.6	8,693	
75–79	9,575	75.0	3,191	25.0	12,766	
80–84	14,394	73.4	5,226	26.6	19,620	
85+	42,363	70.4	17,832	29.6	60,195	
Sex						
Male	25,306	72.7	9,525	27.3	34,831	0.178
Female	51,980	72.4	19,954	27.6	71,934	
CHESS score						
Mean (SD)	0.94	1.0	2.54	1.56	106,762	< 0.0001
Frailty						
Robust	8,140	91.8	726	8.2	8,866	< 0.0001
Pre-frail	20,895	83.7	4,076	16.3	24,971	

Characteristic	Not neglected *n* = 77,286	(%)	Neglected *n* = 29,479	(%)	Total	*p* value
Frail	4,8251	66.2	24,677	33.8	72,928	
Income quintile						
1 (low)	22,354	71.4	8,948	28.6	31,302	< 0.0001
2	16,924	73.3	6,171	26.7	23,095	
3	14,048	73.4	5,083	26.6	19,131	
4	12,723	72.1	4,922	27.9	17,645	
5 (high)	10,638	72.0	4,128	28.0	14,766	
Missing					826	
Location						
Urban	66,889	72.7	25,154	27.3	92,043	< 0.0001
Rural	9,828	70.5	4,109	29.5	13,937	
Facility's region						
Central	21,724	77.6	6,258	22.4	27,982	< 0.0001
Southwest	24,672	68.0	11,630	32.0	3,6302	
East	21,802	75.4	7,126	24.6	2,8928	
North	9,037	67.0	4,444	33.0	13,481	
Facility ownership						
Municipal	15,150	69.2	6,739	30.8	21,889	< 0.0001
Non-profit	20,277	71.8	7,980	28.2	28,257	
For-profit	41,859	73.9	14,760	26.1	56,619	
Death within 90 days of assessment						
Yes	66,453	78.1	18,592	21.9	85,045	< 0.0001
No	10,507	49.4	10,746	50.6	21,253	

CHESS = Changes in Health, End-stage disease, Signs and Symptoms.

Following the onset of the COVID-19 pandemic, LTC residents who presented with clinical signs of neglect had an 80% (95% CI: 1.70, 1.91) increased risk of death within 90 days compared with individuals who were not neglected, following adjustment for individual- and facility-level characteristics. Risk factors for 90-day mortality included having higher CHESS scores, higher frailty scores and advanced age. Protective factors that decreased the odds of mortality for residents during COVID-19 included being female and residing in facilities located in rural areas and the southwestern, eastern or northern regions of Ontario. Individuals residing in for-profit homes had an 18% (95% CI: 1.10, 1.27) increased odds of death compared with residents living in municipal homes, while there were no statistically significant differences between residing in municipal or non-profit homes. Finally, LTC residents who tested positive for COVID-19 had 41% (95% CI: 1.31, 1.53) increased odds of death within 90 days of assessment compared with their counterparts who tested negative

(Table 2). Separate logistic regression analyses were conducted to determine the association between death and each component of the neglect index (i.e., pressure ulcer, dehydration, and UTI), which are reported in Appendix 1 (Tables A1–A3).

TABLE 2. Adjusted odds ratios for 90-day mortality for LTC residents living in Ontario, before COVID-19 from January 2019 to February 2020 and during COVID-19 from March 2020 to December 2020

	Mortality			
	Pre–COVID-19		During COVID-19	
Variable	OR	(95% CI)	OR	(95% CI)
Neglect				
Yes (reference = no)	1.55	(1.46, 1.64)	1.80	(1.70, 1.91)
Age group (reference = 65–69)				
70–74	1.22	(1.02, 1.46)	1.27	(1.05, 1.53)
75–79	1.30	(1.10, 1.55)	1.42	(1.19, 1.68)
80–84	1.53	(1.30, 1.80)	1.53	(1.30, 1.80)
85+	1.61	(1.38, 1.88)	1.92	(1.64, 2.24)
Sex (reference = male)				
Female	0.74	(0.70, 0.78)	0.56	(0.53, 0.59)
CHESS score	2.06	(2.01, 2.10)	2.36	(2.31, 2.42)
Frailty (reference = robust)				
Pre-frail	2.41	(2.06, 2.82)	2.03	(1.60, 2.57)
Frail	4.21	(3.63, 4.89)	3.22	(2.57, 4.04)
Location (reference = urban)				
Rural	0.86	(0.80, 0.93)	0.87	(0.80, 0.96)
Facility region (reference = central)				
Southwestern	0.82	(0.77, 0.88)	0.76	(0.71, 0.82)
Eastern	0.78	(0.72, 0.84)	0.86	(0.80, 0.93)
Northern	0.94	(0.86, 1.03)	0.72	(0.66, 0.80)
Ownership (reference = municipal)				
Non-profit	0.85	(0.79, 0.92)	0.92	(0.85, 1.00)
For-profit	0.90	(0.84, 0.96)	1.18	(1.10, 1.27)
COVID-19 test (reference = negative)				
Positive			1.41	(1.31, 1.53)

CI = confidence interval; CHESS = Changes in Health, End-stage disease, Signs and Symptoms; OR = odds ratio.

Discussion

In this study we investigated the association between indicators of neglect, defined as the presence of decubitus ulcers (pressure ulcers), dehydration and UTIs, and 90-day mortality

for LTC residents in Ontario. We also report on the risk of death due to neglect before the COVID-19 pandemic (January 2019 to February 2020) and in the first 10 months of the pandemic. Findings demonstrate that neglect was a significant risk factor for mortality for residents of LTC homes before and during the pandemic; over one-quarter of residents presented with neglect.

Before the pandemic, individuals who exhibited signs of neglect had 55% increased odds of death within 90 days of the assessment. During the pandemic, the odds of death were 80% higher among residents who presented with signs of neglect compared with those who did not present with signs of neglect. These findings are not unexpected given the severity of conditions found within some of the homes before and during the pandemic (Beattie and Reddekopp 2021; Charpentier and Soulières 2013; Howlett 2021; Russell 2020). In the most severe cases, the Canadian Armed Forces were deployed to assist homes during the first wave and exposed the abysmal conditions. They noted various signs of abuse and neglect such as extreme deprivation, no assistance with eating or drinking and multiple cases of residents with decubitus ulcers (CAF JTFC 2020).

Our analysis revealed that decubitus ulcers and dehydration were both strongly associated with 90-day mortality among LTC residents; however, there was no significant association between UTIs and death (Appendix 1: Tables A1–A3). This may be due to underreporting following the lack of timely diagnosis (LoFaso and Rosen 2014). Previous literature demonstrates that residents who experienced limitations in daily living activities have an increased risk of being neglected (Zhang et al. 2011). This study did not control for the presence of decubitus ulcers, dehydration or UTIs.

Although signs of neglect were identified as a statistically significant risk factor for 90-day mortality in both time periods of the study, the odds of death among residents who presented with neglect compared to those who did not increased during the pandemic. The COVID-19 pandemic may have increased the vulnerability of older adults in LTC to abuse and neglect due to social isolation protocols that eliminated access to networks of informal care through family caregivers and heighted dependency on short-staffed and strained nursing home workers (Gardner et al. 2020; Han and Mosqueda 2020).

A systematic review conducted by Yon and colleagues (2019) investigated the prevalence of abuse in institutional settings, including neglect, from self-reported data provided by residents and staff. The study revealed that approximately 64% of staff providing care in institutional settings reported perpetrating elder abuse and neglect in the past year (WHO 2021; Yon et al. 2019). Staff are more likely to engage in acts of neglect if they had experienced psychological stressors or had intentions to leave their job following burnout (Botngård et al. 2021). Goodridge and colleagues (1996) surveyed over 100 nursing assistants employed in an LTC home in Winnipeg, Manitoba, to understand the relationship between burnout, conflict with residents and aggression toward staff. The authors found that these direct care workers faced multiple stressors, including aggressive behaviour toward them by residents. Conflict between residents and staff, including situations where either party experienced

abuse, was associated with staff burnout as well as aggression. The pandemic elevated the stressful working conditions in LTC, given staff experienced pressures following inconsistent guidelines from health authorities, limited resources for protection and infection control and severe staffing shortages (Grabowski and Mor 2020; Lysyk 2021; Trabucchi and De Leo 2020). Several studies and news media articles revealed that LTC staff experienced significant psychological distress and work overload during the pandemic in many parts of the world (Mahoney 2021; Martin et al. 2021; Mo and Shi 2020). As such, the turbulent working conditions during COVID-19 and inadequate supports for staff and residents amid social isolation mandates may have led to higher odds of neglect experienced by residents within the first 10 months of the pandemic in Ontario, as revealed by our study.

Furthermore, recent media investigations have found that 85% of homes in Ontario have violated regulations repeatedly in 2019, perpetrating serious offences related to abuse and neglect without facing any consequences (Pederson et al. 2020). Of 623 LTC homes in the province, 200 had repeat offences for "failing to ensure that residents are not neglected by the licensee or staff," with even more neglect-related incidents filled under other violation codes, such as improper skin care (Pederson et al. 2020). Our findings imply that enhanced accountability measures are needed in Canada to safeguard residents from being placed in situations that compound their vulnerability to neglect. For example, the UK established the Care Quality Commission in 2009, an independent health and social care regulator, to monitor all care organizations, including homes, requiring providers to report incidents of abuse and neglect, including the development of Stage 3 or above decubitus ulcers (Care Quality Commission 2009). It is also within the Care Quality Commission's discretion to refer incidents of concern to the police or local council to ensure residents' protection. In 2014, the UK government prioritized the prevention of decubitus ulcers by integrating this goal into their national agenda, placing accountability for improving the health of older adults at the highest level (Department of Health 2014). Research revealed that these accountability measures and reporting mechanisms motivated staff to adhere to recommended pressure ulcer prevention practices (Lavallée et al. 2018). Therefore, establishing accountability protocols through legislative frameworks and independent regulators with the authority to confer punitive measures on perpetrators of elder abuse and neglect may enhance resident safety in institutional care settings.

This study recommends that caregivers are given essential supports, such as training in neglect recognition, where clinical protocols should be carefully assessed to prevent an adverse outcome. Enhanced detection and screening for neglect may reduce unnecessary suffering and death among this vulnerable population. The RAI-MDS is used to collect information on the clinical signs and symptoms of residents upon admission, on a quarterly basis and upon significant changes to their health status. While it can be used to raise concerns related to the deterioration of resident health, a more proactive approach through the implementation of a questionnaire or assessment instrument specific to neglect and abuse may facilitate more accurate and earlier detection. These symptoms are serious and

require an integrated plan of care and neglect prevention that should be formulated upon a resident's admission and informed by a network of caregivers, including nutritionists and family members. Furthermore, improving LTC home conditions, such as addressing chronic understaffing and increasing training and awareness of infection prevention and control protocols for existing staff may reduce the burden of neglect experienced by LTC residents. In particular, psychosocial supports – such as policies that expand access to mental healthcare, including respite or time off work with appropriate renumeration – can address psychological distress resulting from stressful working environments where there are increased experiences of burnout and exposure to traumatic stressors.

The linkage of administrative databases to examine a composite index of signs of neglect is an important strength of our study. Some limitations include the derivation of the neglect index from existing clinical data collected by the assessment items of the RAI-MDS. While the RAI-MDS is completed by trained staff and evidence suggests that it is a reliable and valid instrument overall (Hutchinson et al. 2010), the potential for non-differential misclassification bias may exist. An examination of the criterion validity of the neglect index is proposed for future research. Moreover, given the possibility for simultaneous occurrence of more than one clinical indicator of neglect, the degree or severity of neglect experiences among residents may warrant further investigation. Additional limitations that arise from using administrative databases include the inability to infer causality and the presence of confounding bias from unobserved variables. Confounding of observed variables were controlled for using multivariable logistic regression.

Conclusion

Neglect of older adults in LTC is associated with an increased risk of death. Clinical signs of neglect such as pressure ulcers and dehydration were significant risk factors for 90-day mortality for residents before and during the pandemic. The odds of death among residents who presented with indicators of neglect, compared with those who did not, increased during the pandemic. Enhanced supports for caregivers, including neglect-detection resources and training, improved working conditions and access to psychosocial benefits, are recommended to address ongoing neglect in residential care homes. The implementation of accountability protocols and reporting mechanisms linked to practical consequences for perpetrators of neglect and abuse is warranted.

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Correspondence may be directed to: Noori Akhtar-Danesh. Noori can be reached by e-mail at daneshn@mcmaster.ca.

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