

Accreditation and Resident Safety in Ontario Long-Term Care Homes

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Abstract

Objective: To determine if accreditation is associated with better resident safety processes and outcomes in 587 Ontario long-term care (LTC) homes. A second area of interest is whether LTC home characteristics influence pursuit of accreditation. **Findings:** Out of five safety areas examined, accreditation was only associated with a lower occurrence of falls. Three of four organizational characteristics examined (facility ownership, chain membership and location) were predictors of facility accreditation. **Implications:** To prevent inequalities in organizations' ability to pursue accreditation, policymakers may need to consider new initiatives that reduce barriers for LTC homes that lack sufficient resources.

Introduction

The primary objective of this study was to determine whether accreditation through Accreditation Canada is associated with more favourable resident safety in Ontario long-term care (LTC) homes. Patient safety is an integral component of the Accreditation Canada program, and the accreditor has had a particularly strong focus on safety in recent years (Accreditation Canada 2012a). As no previous studies have examined Accreditation Canada's impact on health outcomes or in LTC specifically, this study represents a novel contribution to the literature that can help inform and improve accreditation programs.

A second area of interest is whether the characteristics of an LTC home influence whether that organization pursues accreditation. Examination of these factors is important, as it could reveal disparities in LTC homes' desire or ability to pursue

accreditation. Indeed, literature reviews suggest that significant challenges to attaining accreditation may exist for organizations that could benefit most from the process (Mays 2004).

Out of five safety areas examined, accreditation was only associated with a lower occurrence of falls. Overall, three of four organizational characteristics examined (facility ownership, chain membership and location) were significant predictors of LTC home accreditation. For-profit facility ownership was predictive of accreditation, as was belonging to a chain and being located in an urban area.

Background

Ontario spends approximately \$3.4 billion annually on care for close to 80,000 LTC home residents, accounting for 7.5% of the provincial health budget (LTC Innovation Expert Panel 2012). LTC homes also represent the single largest category of institution undergoing accreditation through Accreditation Canada (Accreditation Canada 2010a). As an incentive to participate in the process, Ontario homes that acquire accreditation status are reimbursed at a higher rate (per bed day) by the provincial Ministry of Health and Long-Term Care (Ontario Ministry of Health 2007). There are presently 634 LTC homes operating in the province of Ontario. These facilities provide services to individuals who require high levels of assistance with personal care, 24-hour nursing care and supervision in a secure environment (Ontario Ministry of Health 2012). Services provided include restorative and palliative care, dementia care and behavioural supports.

Compared to acute care settings, safety risks are potentially

greater in LTC homes, where residents with impaired cognition and self-care abilities are less able to independently control their own safety (Institute of Medicine 2004; Handler et al. 2006). Among the primary barriers to success of quality and safety initiatives is the perceived lack of a consistent external force or driver for continuous improvement (Ferlie and Shortell 2001). This study assesses whether voluntary accreditation through Accreditation Canada may represent this needed stimulus for improvement.

Accreditation Canada sets specific patient safety goals that all accredited organizations are intended to meet. These goals include the cultivation of a culture of safety within organizations, improvement of the effectiveness and coordination of communication among providers and reducing the risk of healthcare-acquired infections (Accreditation Canada 2012a). As part of their strong focus on patient safety, Accreditation Canada has included a number of patient safety areas in its “Required Organizational Practices” (ROPs), where compliance with these ROPs is intended to have a direct impact on whether a facility is granted accreditation status. There are specific ROPs aimed at the prevention of falls, infections and pressure ulcers.

Resident Safety in LTC

Safety-related outcomes in LTC are generally those considered to be largely preventable through close monitoring of risk factors at critical points during care (Scott-Cawiezell and Vogelsmeier 2006; Wagner and Rust 2008). Five areas of care felt to be amenable to such risk reduction in LTC include: (1) falls, (2) physical restraints, (3) urinary catheters, (4) pressure ulcers and (5) infections.

Falls may lead to injuries, fractures or death and are the most frequent reason for emergency department visits in Ontario LTC home residents (Gruneir et al. 2010). Viewed as the result of multiple potentially modifiable risk factors, falls are an important measure of resident safety (Morse 2006; American Geriatrics Society 2011). Another frequent safety concern in LTC is the routine use of physical restraints. Although restraints have been used for many decades in LTC homes, it has been known for some time that these devices are associated with substantial risks, including death (RNAO 2012).

Infections represent an important safety indicator, as they are a major cause of illness and death in LTC (Castle 2000; Strausbaugh and Joseph 2000; Loeb et al. 2006). Medical care for infections in older adults can be fairly resource-intensive, with pneumonia and urinary tract infections representing the most frequent preventable reasons for LTC home resident visits to emergency departments in Ontario (Gruneir et al. 2010). Indwelling urinary catheters are the greatest risk factor for urinary tract infections in institutionalized older adults (Nicolle

2009; Jaggi and Sissodia 2012; Smith, et al. 2008); thus, institutional catheterization rates are reflective of resident safety practices.

Purpose

To make empirical resident safety comparisons between accredited and non-accredited LTC homes, this research operationalized resident safety as five Resident Assessment Instrument – Minimum Data Set (RAI-MDS)-based quality indicators (QIs). The objectives of this study were as follows:

1. To examine whether voluntary accreditation (through Accreditation Canada) is associated with more favourable resident safety in Ontario LTC homes, represented by five QIs: prevalence of falls, restraints, urinary catheters, pressure ulcers and infections.
2. To examine whether organizational characteristics of interest (facility ownership, chain membership, location and size) are predictors of LTC home accreditation in Ontario.

Methods

This study used a cross-sectional design with the LTC home as the unit of analysis. Ontario LTC home records for 587 homes from 2010 were examined. See Table A1 in the Appendix for a description of the characteristics of the study LTC homes (see this and all other tables at www.longwood.com/content/24214).

To examine whether accreditation was associated with superior resident safety, safety was operationalized as five RAI-MDS-based QIs (prevalence of falls, restraints, catheters, pressure ulcers and infections). For the study’s secondary objective, logistic regression was used to determine which organizational characteristics were predictive of accreditation.

Findings

Of the five patient safety areas examined, only one (falls) was significantly associated with accreditation. After adjusting for confounders, accredited homes were estimated to have fall rates that were 8% lower than in non-accredited homes (Relative Risk = 0.929; confidence interval [CI] = 0.88–0.99) (Table A2). There were statistically significant differences in organizational characteristics between the accredited and non-accredited group of LTC homes. Accredited LTC homes were more likely to be located in an urban area, to be owned by a for-profit corporation and to belong to a chain. The odds of accreditation were approximately six times smaller for municipal (odds ratio [OR] = 0.16; CI = 0.09–0.30) and non-profit (OR = 0.17; CI = 0.10–0.29) facilities relative to for-profits, three times greater for chains relative to non-chains (OR = 2.77; CI = 1.76–4.36)

and nearly twice as large for urban relative to rural facilities (OR = 1.72; CI = 1.03–2.86) (Table A3).

Discussion

Out of five safety areas examined, accreditation was only associated with a lower occurrence of falls. Three of the four organizational characteristics examined (ownership, chain membership and location) were significant predictors of accreditation. For-profit facility ownership was predictive of accreditation, as was belonging to a chain and being located in an urban area.

There was a statistically significant association between accreditation and lower fall prevalence, while results for the remaining four QIs (pressure ulcers, infections, restraints and catheters) were not statistically significant. These findings are consistent with Greenfield and Braithwaite's 2008 conclusion that accreditation was sometimes but not always associated with superior patient outcomes. However, in contrast, two more recent US studies, examining accreditation in the LTC setting specifically, noted more favourable relationships between facility accreditation and health outcomes (Kang et al. 2011; Wagner et al. 2012a, 2012b, 2012c, 2013). These inconsistencies in results between studies and the array of differences in accreditation programs between jurisdictions (Flodgren et al. 2011) suggest that accreditation is best studied in region-specific contexts.

LTC home accreditation may have had an effect on falls without affecting the other QIs examined because falls represent the most common, and among the most serious adverse event in LTC, often having deleterious consequences on resident functioning (Kannus et al. 2005; Stolee et al. 2009). Accreditation Canada standards advise organizations to prioritize areas for improvement based on which types of events have the highest frequency of occurrence and represent the highest degree of risk (Accreditation Canada 2012b) – thus fall prevention is likely to be considered a high priority in accredited LTC homes. Accreditation Canada standards for falls direct institutions to apply resident-specific fall reduction interventions (Accreditation Canada 2010b, 2011). Recently, Accreditation Canada, the Canadian Institute for Health Information (CIHI) and the Canadian Patient Safety Institute (2014) have teamed up to provide a more comprehensive picture on the impact of falls in LTC as well as strategies to prevent and reduce harm from falls.

Yet, the success of accreditation programs within each institution is likely dependent on the program's appropriate implementation and execution. An intervention that may be effective in itself may not produce results if it is poorly complied with or encounters obstacles in daily practice (Neyens et al. 2011). Tracking of infection rates over time is an important tool to inform a facility's infection prevention and control strategy (Jarvis 2003; Gill et al. 2011). Performance measurement and reporting is often necessary to motivate action in healthcare

institutions, where workers may see quality improvement as futile and a potential waste of resources (Dixon-Woods et al. 2011).

The absence of an observed relationship between accreditation and some of the safety areas examined may also warrant some consideration of the potential for refinement in accreditation standards. Although Accreditation Canada standards require that institutions enact policies governing restraint use, there is no explicit requirement that least restraint approaches be applied. Ontario's Long-Term Care Homes Act does encourage such approaches, however (Long-Term Care Homes Act 2007). Similarly, the Accreditation Canada standards for infection prevention and control are directed primarily at preventative activities for respiratory and food-borne infectious agents rather than prevention of urinary tract infections (which are among the most common types of infections in LTC homes).

The observed differences in organizational characteristics between the accredited and non-accredited group of homes suggest that accreditation may be less attainable for some types of institutions. Chain member homes were nearly three times more likely to attain accreditation than non-chains. The absence of any relationship between accreditation and facility size suggests that this effect was not necessarily mediated through increased economies of scale in chains. More likely, these results support the contention that chain networks facilitate the sharing of practices between institutions and promote conformity to industry norms (Pfeffer and Salancik 1978; DiMaggio and Powell 1983). Chain members may also have access to specialized expertise from the parent organization that makes achieving accreditation easier and less resource-intensive. Indeed, partnerships involving the sharing of staff and equipment have been previously noted in Ontario LTC organizations (Skinner and Rosenberg 2006).

With respect to LTC home location, urban homes were nearly two times more likely to be accredited than rural homes. These results are consistent with previous US studies on accreditation (Lutfiyya et al. 2009; Brasure et al. 2000; Kang et al. 2011). It has been noted that residents in rural communities are less likely to make use of private user-pay LTC services, and the fundraising base in rural communities is substantially smaller than in urban areas (Skinner and Rosenberg 2006). Many Ontario LTC homes rely on such funds as supplemental revenue sources (Hillmer 2008). Furthermore, as youth continue to migrate out of rural areas and immigrants remain attracted to large urban centres, rural communities struggle to retain licensed health professionals (CIHI 2002; Tepper et al. 2006; Caldwell and Temple 2010). As preparation for accreditation surveys is an intensive process that likely requires the involvement of staff with a high level of training or experience in accreditation, rural facilities that are unable to recruit such personnel may be less able to pursue accreditation.

Previous studies examining the LTC sector have established that the burden of paperwork associated with managerial innovations can shape institutional responses, where reactions are often based on an intervention's perceived "costliness" in terms of human or financial resources (Savishinsky 1991; Foner 1994; Hennessy et al. 1997; Grenade 2003). Homes that perceive their human resources as insufficient to comply with accreditation standards may thus choose to avoid accreditation. Indeed, some under-resourced institutions have reported that the accreditation process takes time and resources away from patient care and non-accreditation-related quality improvement (Lemieux-Charles et al. 2003). Given these considerations, the current Ontario policy of providing small financial incentives for accreditation (Ontario Ministry of Health 2007) may not, in the absence of other supports, permit all homes to pursue accreditation. Ontario could also make accreditation a more viable option for under-resourced LTC homes by reducing some redundancies between the accreditation standards and existing legislation. There is some potential for duplication between the Accreditation Canada standards and the Long-Term Care Homes Act, which includes some requirements similar to the ROPs (Long-Term Care Home Act 2007; Accreditation Canada 2011).

A major limitation of this study was the inability to control for facility participation in other quality improvement programs such as "Residents First" and "Safer Healthcare Now!" Such programs could have improved QI rates in non-accredited homes to the extent that there were no detectable differences between accredited and non-accredited facilities. Alternatively, the observed results for falls (attributed to accreditation) may have resulted from other fall prevention programs that accredited facilities were more apt to participate in. Accreditation Canada alone was the focus of this research, thus the impact of the Commission on Accreditation of Rehabilitation Facilities (CARF) was not assessed (CARF accreditation was controlled for as a potential confounder).

Conclusions

To prevent inequalities in organizations' capabilities of pursuing accreditation, policymakers may need to consider new initiatives that reduce barriers for facilities that lack sufficient resources. As environmental factors such as culture, incentives and regulations can greatly affect the success or failure of accreditation programs (Al Tehewy et al. 2009), future research should examine accreditation outcomes in other Canadian provinces and healthcare settings. Further research on accreditation can inform policy and facilitate the refinement of accreditation standards over time. **HQ**

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