Profile of residents in unlicensed homes for the aged in the Eastern Townships of Quebec

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Abstract

Background: The number of unlicensed homes for the aged in Quebec has increased rapidly over the last decade. Because these homes are not linked in any formal way to the Quebec Ministry of Health and Social Services, little is known about their residents. The objective of this study was to describe the sociodemographic characteristics and disability profile of elderly residents in unlicensed homes for the aged. Comparisons were made to a sample of residents drawn from licensed long-term care facilities.

Methods: The target population was restricted to residents aged 65 years and over in facilities in the Eastern Townships of Quebec who had some difficulties with at least 2 activities of daily living. This population included 94% of elderly people in licensed facilities and 64% of those in unlicensed homes. The study population comprised 301 impaired people in 88 residential care facilities (36 licensed, 52 unlicensed). They were selected using a 2-stage sampling scheme: stratified sampling of the primary units (homes) and simple random sampling of the secondary units (residents). Facility managers were interviewed to collect descriptive information about themselves and their facilities. Residents were assessed with regard to their cognitive abilities (using the Modified Mini-Mental State [3MS] Examination) and their functional autonomy (using the Functional Autonomy Measurement System [Système de mesure de l'autonomie fonctionnelle (SMAF)].

Results: Although residents without impairment were excluded from the study, the unlicensed facilities were found to house people who were, on average, less cognitively and physically impaired than their counterparts in the licensed facilities ($p < 0.001$). Nonetheless, a substantial proportion of the residents in the unlicensed homes had severe cognitive disabilities (38.5% had a 3MS score of less than 60) and functional disabilities (17.0% had an SMAF score of more than 40). The corresponding figures for residents in the licensed facilities with these scores were 65.3% and 66.7%. Of the managers of the unlicensed facilities 31.9% had no training and 58.8% had no previous experience in caring for elderly people. The staff–resident ratio was lower among the unlicensed homes than among the licensed facilities (mean 0.05 [standard error of the mean (SEM) 0.01] v. 0.39 [SEM 0.03], $p < 0.001$). In addition, only 26.0% of the unlicensed homes employed qualified staff, as compared with 63.0% of the licensed facilities ($p < 0.001$).

Interpretation: This study provides evidence that many residents of unlicensed homes have considerable care needs. These homes appear ill-equipped to address their needs, which raises doubts about their ability to deliver high-quality care.

Résumé

Contexte : Le nombre de foyers sans permis qui accueillent des personnes âgées au Québec a augmenté rapidement au cours de la dernière décennie. Comme ces foyers n'ont aucun lien officiel avec le ministère de la Santé et des Services sociaux du Québec, on connaît peu de choses de leurs résidants. Cette étude visait à décrire les caractéristiques sociodémographiques et le profil d'incapacité des résidants âgés des ressources d'hébergement sans permis. On a établi des comparaisons avec un échantillon de résidants tiré d'établissements de soins de longue durée détenteurs d'un permis.

Evidence

Études

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See related article page 151

Méthodes : La population cible a été restreinte aux résidants de 65 ans et plus d'établissements de la région de l'Estrie qui avaient de la difficulté à exécuter au moins deux activités de la vie quotidienne. Cette population représente 94 % des personnes âgées des établissements détenteurs d'un permis et 64 % des résidants des ressources d'hébergement sans permis. L'échantillon comprenait 301 personnes en perte d'autonomie fonctionnelle ou cognitive habitant 88 ressources d'hébergement (36 avec permis et 52 sans permis). Elles ont été choisies selon un plan d'échantillonnage à deux degrés : échantillonnage stratifié des unités primaires (foyers) et échantillonnage aléatoire simple des unités secondaires (résidants). On a interviewé les responsables des établissements sélectionnés pour recueillir des données descriptives à leur sujet et sur leur établissement. On a évalué les capacités cognitives (au moyen de l'examen Modified Mini-Mental State [3MS]) et l'autonomie fonctionnelle (au moyen du système de mesure de l'autonomie fonctionnelle [SMAF]) des résidants.

Résultats : Même si les résidants sans incapacité ont été exclus de l'étude, on a constaté que les établissements sans permis accueillaient des personnes qui, en moyenne, avaient moins de déficiences cognitives et physiques que les résidants des établissements avec permis ($p < 0,001$). Néanmoins, une proportion importante des résidants des foyers sans permis avaient de lourdes incapacités cognitives (38,5 % avaient un résultat 3MS de moins de 60) et fonctionnelles (17,0 % avaient un résultat SMAF de plus de 40). Les chiffres correspondants dans le cas des résidants d'établissements avec permis qui avaient les mêmes résultats étaient de 65,3 % et 66,7 %. Parmi les responsables des établissements sans permis, 31,9 % n'avaient aucune formation et 58,8 % n'avaient aucune expérience antérieure d'intervention auprès de personnes âgées. Le ratio employés–résidants était moins élevé dans les foyers sans permis que dans les établissements avec permis (moyenne 0,05 [erreur type (ET) 0,01] c. 0,39 [ET 0,03], $p < 0,001$). En outre, seulement 26,0 % des foyers sans permis employaient du personnel qualifié, tandis que cette proportion était de 63,0 % dans les établissements détenant un permis ($p < 0,001$).

Interprétation : Cette étude démontre que beaucoup de résidants de foyers sans permis ont besoin de soins considérables. Ces foyers semblent mal équipés pour répondre à leurs besoins, ce qui soulève des doutes quant à leur capacité de dispenser des soins de qualité.

As our population ages, the proportion of frail elderly people increases, particularly among those aged 75 and older. Families provide most of the help needed to compensate for their impairments.[1–3] However, there comes a time when caregivers can no longer meet the needs of the frail elderly, despite the availability of home care services,[4] and admission to a long-term care facility becomes necessary.

Two kinds of facilities exist: licensed and unlicensed. A licensed facility must comply with provincial regulations. Because licensing is a provincial responsibility, regulatory standards differ from one province to another. However, most provinces set minimum staffing levels and safety requirements. Through periodic survey inspections, the province measures compliance with the requirements[5] and specifies actions to be taken when problems are identified.[6] Implicitly, health care services provided in licensed facilities are tailored to the residents' needs.

By contrast, unlicensed facilities are not subject to any government control. They are privately owned residential care facilities that house paying residents. Typically, the monthly fee covers room and board, with a supplement charged for special health care services (e.g., bathing, skin care, management of medications).

At the outset, most unlicensed facilities accept people with few functional limitations. However, as the residents grow older they gradually lose their autonomy, and their need for health care services increases. Furthermore, because of the shortage of public beds in some areas, many of these homes now accept people who have already lost an important part of their autonomy at the time of admission. These considerations suggest that a significant proportion of residents of unlicensed homes may be experiencing a high level of functional impairment. Because unlicensed homes do not fall under provincial jurisdiction, no data are available on the profile of their residents.

Furthermore, compared with people living in the community and those in nursing homes, residents of unlicensed homes have received little attention from the scientific community.[7] Because physicians, social workers and home care professionals play an important role in placing and transferring dependent elderly people, they need to be aware of the situation that prevails in unlicensed homes.

In this paper we describe the profile of residents in unlicensed homes for the aged in a region of Quebec with regard to their cognitive abilities and functional autonomy. To facilitate interpretation of the data, we compared their characteristics with those of a sample of residents in licensed long-term care facilities in the same area.

Methods

The study was approved by the Ethics Review Board of the Sherbrooke Geriatric University Institute.

Sample selection

The target population comprised impaired people aged 65 and over who had been living for more than 3 months in a licensed long-term care facility or an unlicensed home for the aged in the Eastern Townships region of Quebec. Impaired people were defined as those who experienced some difficulties with at least 2 activities of daily living. According to information provided by the managers of the facilities, this accounted for 94% of all elderly people admitted to licensed facilities and 64% of those living in unlicensed homes.

We selected subjects using a stratified 2-stage sampling scheme, with facilities corresponding to primary sampling units and residents to secondary units. We obtained the list of licensed facilities from provincial records and that of unlicensed facilities from a 1994 provincial census. The latter list was updated using information from key health care professionals. Of the 210 facilities located in the study area, we excluded 32 whose residents were primarily less than 65 years old or without any impairment. Facilities were then stratified according to size (number of elderly residents). In each stratum, we randomly selected a predetermined number of facilities, from which we randomly selected a predetermined number of residents. Stratum-specific sampling fractions were used, with their value determined from work by Cochran.[8] The target sample size was 88 facilities and 304 residents (Table 1).

Recruitment

Facility managers were informed of the study and its purpose through a personalized letter. The letter was followed by a telephone call to verify the eligibility of the facility and the manager's willingness to participate. In the event of a refusal, the manager of another facility from the same stratum was contacted. Managers who agreed to participate were interviewed for information about themselves (e.g., training) and the facility (e.g., occupancy rate, health care services provided, staffing). At the end of the interview they were asked for a list of all residents who met our eligibility criteria.

The residents randomly selected from the lists provided by the managers were then invited to participate in the study. Informed consent was provided by the resident or, in cases of severe cognitive deficits, by the resident's legal guardian or advocate, usually a family member. Residents who refused to participate were replaced by someone from the same facility.

Data collection

We collected data about the residents from September 1996 to February 1997. Residents were interviewed by a nurse or social worker with experience in assessing frail elderly people. A questionnaire was used for descriptive data (e.g., age, sex, marital status, education). Cognitive disability was assessed with the Modified Mini-Mental State (3MS) Examination,[9,10] a revised version of the Mini-Mental State Examination developed by Folstein and colleagues.[11] The 3MS exam comprises 15 items assessing orientation to place and time, attention, memory, language and the ability to follow simple verbal and written commands. Total scores range from 0 (worst) to 100 (best); a score below 60 reflects severe cognitive deficits.

Functional status was assessed with the revised version of the Functional Autonomy Measurement System (Système de mesure de l'autonomie fonctionnelle [SMAF]).[12] The SMAF evaluates the subject's ability to accomplish 29

Table 1: Number of licensed long-term care facilities and unlicensed homes for the aged, and of residents,* in the Eastern Townships, Quebec, that were targeted for the study sample, by size of facility

Facility size, no. of elderly residents	No. of facilities (and no. of residents per facility)		
	Licensed	Unlicensed	Total
1–9	17 (2)	22 (2)	39 (78)
10–29	6 (3)	13 (3)	19 (57)
30–39	5 (4)	6 (4)	11 (44)
40–59	5 (5)	6 (5)	11 (55)
≥ 60	3 (10)	5 (8)	8 (70)
Total	36 (127)	52 (177)	88 (304)

*Only residents aged 65 years and over with impairment were included in the sampling frame. According to information provided by the facility managers, this amounted to 94% of the residents in licensed facilities and 64% of those in unlicensed homes.

functions covering 5 sectors of activity: activities of daily living, mobility, communication, mental function and instrumental activities of daily living. Each function is rated on an ordinal scale from 0 (complete autonomy) to 3 (total dependence). Summing the ratings assigned to each function gives a total score out of 87. Clinically, a score over 40 is considered indicative of a substantial loss of autonomy.

Statistical analysis

Licensed facilities and unlicensed homes were compared with the Student's t-test and χ^2 test, as appropriate. For these comparisons, the α level was set at 0.05. Because we suspected that the characteristics of the residents would vary by size of facility, analyses were performed first by combining all facilities of a given type and then by categorizing the facilities according to size: small (1–9 beds [39 facilities]), medium (10–39 beds [30]) and large (40 beds or more [19]). To control the probability of a type I error, the level of significance was then lowered to 0.017 (0.05 ÷ 3). Finally, to ensure the validity of the statistical tests of significance, all analyses were conducted using SUDAAN (SUrvey DAta ANalysis; version 7.11, Research Triangle Institute, Research Triangle Park, NC, 1996), which takes the sampling design into account.

Results

All managers of the 88 facilities randomly chosen from the sampling frame agreed to participate in the study. From these facilities, 315 impaired residents were randomly selected and approached for informed consent. Only 14 (3.7%) refused. These residents differed significantly from those who agreed to be assessed in only one of the variables studied: more of the nonparticipants were able to give their own consent to the study (84% v. 34%, $p = 0.02$). This left 301 residents, although the target sample was 304 (Table 1). The discrepancy was because 3 facilities in the stratum with 1–9 residents housed only one resident; as indicated in Table 1 the sampling plan dictated selecting 2 residents from facilities in this stratum.

Table 2 shows the sociodemographic characteristics and clinical profile of the residents. As expected, two-thirds of the residents were women. Most were widows, were over 80 years of age and had less than 8 years of education. In general, the residents of the licensed and unlicensed homes had comparable sociodemographic characteristics. The only significant difference pertained to income, which was higher among the residents of the unlicensed facilities given that more of them received provincial or private pensions.

With regard to the clinical profile, the residents of the licensed facilities were much more disabled, both cognitively and functionally, than their counterparts in the unlicensed homes. However, this observation was true only for people in the medium and large facilities. Although the residents of the unlicensed homes were less disabled, a significant proportion of them had severe cognitive deficits (38.5% had a 3MS score of less than 60) and functional impairment (17.0% had an SMAF score of more than 40). In the licensed facilities, the prevalence of cognitive impairment increased significantly with the size of the facility (37.5% in small, 59.3% in medium and 68.4% in large facilities; $p = 0.019$). The opposite was true in the unlicensed homes (52.4% in small, 49.8% in medium and 31.1% in large homes; $p = 0.022$). Differences were also observed for functional dependence. Its prevalence in-

Table 2: Selected characteristics of the residents*

Characteristic	Facility; % of residents† Licensed *n = 124*	Unlicensed *n = 177*	*p* value
Female	67.3	67.4	0.996
Mean age (and SEM)	84.7 (0.6)	83.3 (0.7)	0.143
Marital status			
Single	20.0	15.8	
Married	18.6	15.9	
Widowed	52.4	61.8	
Divorced/separated	9.0	6.5	0.395
Education			
Grade 7 or less	71.7	65.0	
Grade 8–12	20.9	23.9	
Postsecondary	7.4	11.1	0.695
Income source			
Guaranteed income supplement or federal pension	80.2	52.2	
Provincial or private pension	19.8	47.8	< 0.001
Cognitive functioning	*n = 115*	*n = 166*	
3MS score < 60	65.3	38.5	0.001
Mean 3MS score out of 100 (and SEM)	37.6 (5.1)	62.0 (1.6)	< 0.001
Mean 3MS score (and SEM), by facility size			
Small	56.9 (3.7)	50.7 (4.2)	0.266
Medium	41.3 (4.5)	58.4 (3.3)	0.003
Large	35.5 (6.4)	65.6 (1.9)	< 0.001
Functional autonomy			
SMAF score > 40	66.7	17.0	< 0.001
Mean SMAF score out of 87 (and SEM)	49.1 (2.3)	29.7 (1.0)	< 0.001
Mean SMAF score (and SEM), by facility size			
Small	31.5 (2.0)	37.4 (2.4)	0.062
Medium	48.4 (2.4)	28.6 (1.8)	< 0.001
Large	50.5 (2.9)	29.0 (1.4)	< 0.001

Note: SEM = standard error of the mean, 3MS = Modified Mini-Mental State Examination,[9,10] SMAF = Functional Autonomy Measurement System.[12]
*All analyses were weighted to account for the study design.
†Unless otherwise stated.

creased with the size of the licensed facilities (20.6% in small, 63.5% in medium and 70.7% in large facilities; $p < 0.001$). In the unlicensed homes, the prevalence of functional dependence was higher in the small homes, but the differences were not statistically significant (27.3% in small, 14.6% in medium and 16.4% in large homes; $p = 0.28$). Hence, in the unlicensed sector, the highest proportion of cases with heavy care needs was found in the small homes.

The characteristics of the facilities studied are summarized in Table 3. Not surprisingly, most of the unlicensed homes were for-profit organizations. The others were mainly religious communities that cared for their own members. The mean occupancy rate was comparable in the licensed and unlicensed facilities, although it varied significantly by size of facility, from 78.5% in the small homes to 93.1% in the larger ones ($p < 0.001$). The unlicensed homes were found to have limited staff and employee qualifications. For all 3 facility sizes, the staff–resident ratio was lower in the unlicensed homes than in the licensed facilities (small 0.02 v. 0.11, $p = 0.005$; medium 0.07 v. 0.65, $p < 0.001$; large 0.07 v. 0.63, $p < 0.001$). In addition, the unlicensed homes were less likely than the licensed facilities to hire qualified staff, even on an occasional basis; this finding held true for all sizes of facility. The unlicensed homes were also less likely than the other facilities to provide health care services, especially psychosocial and rehabilitation services.

During the interview the managers were asked "What do you do when the care a resident requires exceeds your resources?" As reported in Table 3, the majority said that they keep the resident. In the licensed group, the frequency of this response increased with the size of facility (small 29.4%, medium 81.8%, large 89.0%; $p < 0.001$). The opposite was found in the unlicensed group: the proportion of managers who said they keep their dependent residents decreased with facility size (small 59.1%, medium 40.5%, large 15.0%; $p < 0.001$). This meant that the small unlicensed homes, those that had fewer human resources and provided fewer services, were more inclined to keep residents if they required increasing care.

Information was also collected during the interview about the managers' characteristics. Although the managers of the small facilities were often also the owners, the managers of medium and large facilities were more likely to be the person responsible for managing the care. Most of the managers were women in their mid-40s (Table 4). On average, the managers of the licensed facilities were more educated and more likely to have nursing training than those of the unlicensed homes. These differences, however, were limited to the medium and large facilities. Overall, 30.8% of the managers admitted having had no training; the proportion was higher in the small facilities, both licensed and unlicensed (52.9% and 40.9% respectively, $p = 0.286$). Overall, managers of the unlicensed homes were less likely than those of the licensed facilities to have had experience caring for elderly people when they were hired. Of the small facilities, both licensed and unlicensed, only 38.2% of the managers said they had had such experience at the time of hire.

Table 3: Selected characteristics of the facilities*

Characteristic	% of facilities† Licensed *n = 36*	Unlicensed *n = 52*	*p* value
For-profit	63.7	93.2	< 0.001
Mean occupancy rate (and SEM)	85 (2)	83 (1)	0.605
Mean staff–resident ratio (and SEM)	0.39 (0.03)	0.05 (0.01)	< 0.001
Employment of qualified staff, even on an occasional basis	63.0	26.0	< 0.001
Health care services provided			
24-hour monitoring	100.0	100.0	–
Management of medications	100.0	95.8	0.057
Special assistance in activities of daily living	91.5	73.6	0.001
Nursing care	91.5	72.5	0.001
Psychosocial services	43.2	5.2	< 0.001
Rehabilitation services	44.7	2.1	< 0.001
Steps taken when resident's care needs increase			
Keep resident at facility	58.9	44.1	0.026
Apply for home services	5.7	37.9	< 0.001
Request transfer	35.6	21.0	0.064

*All analyses were weighted to account for the study design.
†Unless otherwise stated.

Interpretation

Our study was motivated by the proliferation of unlicensed homes for the aged in the last 10 years and the paucity of data about their residents. It is even more relevant in this period of budgetary constraints, when provincial governments are not opening new long-term care facilities and are leaving the private sector to meet the needs of elderly people with slight or moderate loss of autonomy. Given the aging and increasing needs of the population, there is every reason to believe that the use of unlicensed homes will increase.

One major finding from our study concerns the training and experience of the managers of the unlicensed homes: 31.9% admitted having no training and 58.8% said they had no previous experience in caring for dependent elderly people at the time of hire. These data are even more disquieting given that a significant proportion of the residents had severe cognitive deficits or a substantial loss of autonomy, especially those in the small unlicensed homes.

One reason for the heavy care needs found in the small unlicensed homes may be the tendency of the managers of these homes to keep their residents even when their functional capacities deteriorate. This decision may be motivated by a much lower occupancy rate than that found in the other facilities. The loss of a resident can certainly compromise the survival of a small home. However, the decision to keep a resident whose condition has deteriorated may also be the wish of the resident. Many residents expressed their wish to die where they were currently living; they had made the manager promise not to "place them." This is a heavy responsibility to take on: few of the unlicensed homes in our study had the necessary staff to intervene appropriately and in a timely fashion when a resident's health status worsened.

Table 4: Selected characteristics of the facility managers*

Characteristics	Facility; % of managers† Licensed *n = 36*	Unlicensed *n = 52*	*p* value
Female	89.8	77.1	0.012
Mean age (and SEM)	46.4 (1.1)	45.5 (0.9)	0.516
Education			
Grade 7 or less	15.9	12.7	
Grade 8–12	17.6	35.1	
College	29.6	34.8	
University	37.0	17.4	0.005
Training			
Nursing	49.9	21.6	
Other	21.2	46.8	
None	28.9	31.9	< 0.001
Had previous experience caring for elderly people	68.2	41.2	0.001

*All analyses were weighted to account for the study design.
†Unless otherwise stated.

The heavy care needs of impaired residents and the lack of qualified, experienced staff in the unlicensed homes raise the question of quality of care in these facilities.[13–15] Because our study was conducted in a limited geographic area, it should be replicated in other parts of the country. Research on this issue is urgently needed, as are studies designed to investigate other relevant outcomes such as the rate of functional decline and mortality. Future studies of unlicensed homes should also collect data on the residents' level of satisfaction with care and their use of other health care services such as those provided by home care agencies, emergency departments and acute care hospitals.

We hope that our description of the situation in unlicensed homes in the Eastern Townships of Quebec will alert health care professionals and policy-makers to the potential needs of an expanding and increasingly frail population.

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