A SURVEY OF RESIDENTIAL CARE FACILITIES IN THE OTTAWA-CARLETON REGION

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BACKGROUND: This study aimed at: a) describing the profile of residential care facilities in the Ottawa-Carleton region with regard to the residents' care needs, health service provision, and staff educational needs; and, b) identifying barriers to referral of at-risk residents to specialized comprehensive geriatric assessment and management programs (CGA).

METHODS: A semi-structured survey questionnaire was mailed to the senior administrative staff of 45 residential care facilities in the Ottawa-Carleton region that met the study inclusion criteria.

RESULTS: 30 facilities participated in the survey (67% response rate). The mean resident capacity was 94.2 (range 10 to 200). Close to half of the facilities (47%) were in operation for less than 10 years, and the vast majority (93%) were privately owned. In all but two facilities, over 65% of residents were 65 years and older. The proportion of older residents that required assistance with personal care varied among the facilities, with over two-thirds (68%) reporting dependence in at least 25% of their older residents. Over 90% of the facilities provided some basic nursing care, 70% had a staff physician and 23% had specialized units. Including all classes of personal care and nursing staff, the mean staff-resident ratio was 0.044. The size of the facility was positively associated with the total number of services offered (r=.53, P<.01), but had a negative association with the staff-resident ratio (r=-.36, P<.05). The most common barriers to referral to the CGA programs were: lack of awareness of services (47%), refusal of resident/family (43%), and refusal of the primary care physician (33%).

CONCLUSION: The survey findings confirm the recent proliferation of residential care facilities, increase in age and complexity of care needs of residents, and inadequate staffing levels in this setting. Increased collaboration between residential homes and CGA programs can enhance the capacity of this sector to provide optimal care to at-risk residents.

Key words: Older Adults, Residential Care, Geriatric Assessment

In the past decade, demographic changes characterized by a rapid growth of the older population coupled with the inadequate funding of community care and long-term care (LTC) sectors have led to a proliferation of private unlicensed residential care and retirement home facilities (the two terms will be used interchangeably in this paper) as an alternative living arrangement for older persons with declining health.[1-2] These facilities are typically designed to provide living arrangement and some supervision and assistance to relatively independent residents. However, in recent years, with the increase in age and disability level of the residents, residential care facilities have become increasingly close to unlicensed "pseudo nursing homes".[1-3] Although there is limited Canadian data on the residents' health profile,[4] international studies over the past two decades indicate high levels of physical, functional and cognitive impairments among a substantial proportion of older residents in these facilities.[3,5-13]

The high prevalence of disease and disability among older residents places a heavy burden of care on the unregulated residential facilities which often are lacking in staff, both in terms of numbers and qualifications.[4-5] This has raised concerns regarding the quality and standards of care in this setting.[1-4] Moreover, international studies report minimal medical monitoring, under-detection of geriatric conditions, and inappropriate management of medical and functional impairments in these facilities.[5,6,10-13]

Interdisciplinary comprehensive geriatric assessment of residents on admission to residential homes has been advocated as an important strategy to identify undetected and untreated geriatric conditions and to advise on optimal management and utilization of available resources.[5,10,13,14] Currently, in the absence of a standardized and universal anticipatory approach to case finding, referral of residential living older adults to the specialized comprehensive geriatric assessment and management (CGA) programs is based primarily on "opportunistic" event-related methods (i.e, referrals are normally initiated by family physician or other service providers

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involved, often when the residents' function is significantly affected). This approach has many pitfalls and results in inadequate targeting and the failure to implement appropriate preventive and therapeutic measures.[5,15]

The objectives of this study were to: a) describe the profile of residential care facilities in the Ottawa-Carleton region with regard to the residents' care needs, health service provision, and staff qualifications and educational needs; and, b) identify barriers to the timely referral of residents with complex health needs who could potentially benefit from CGA programs.

METHODS

A semi-structured survey questionnaire was mailed to the key informants at the administrative level (i.e., directors of care, directors of administration, or general managers) of all residential facilities in the Ottawa-Carleton region that met the following inclusion criteria: 1) housing a minimum of five residents aged 60 years and older and, 2) having less than 50% of residents with developmental or psychiatric disabilities. The sampling pool was drawn from the Directory of Housing and Residences for Seniors in Ottawa-Carleton region 2000-2001,[16] Directory of Resources for Senior Citizens of Ottawa-Carleton 2000,[17] and Consumer Directory of Quality Retirement Residences 2000-2001.[18] Using the information available in these documents, the homes' eligibility was established (as necessary, individual facilities were contacted to verify their eligibility). Of the 60 facilities listed, 45 met the study inclusion criteria.

The questionnaire, which included both open- and close-ended questions (i.e., a combination of dichotomous items, multiple response options, and rank-order questions), was comprised of six major components eliciting information about the following: a) respondent background, b) facility profile, c) resident profile, d) health services available, e) staff learning needs, and, f) use of CGA programs. To improve response rate, the questionnaire was mailed with an invitation letter and a postage paid return envelope. The cover letter indicated that the questionnaire had to be completed by the director of care, and if not available, by the director of administration/general manager of the facility. Letters of reminder were mailed to the key informants 2 weeks following the original distribution of the questionnaires, and at the 4-week period, a reminder telephone call was made by the project director.

Both qualitative and quantitative approaches were used to analyse survey data. Using the SPSS statistical package, descriptive and correlational analyses were employed to summarize responses to the close-ended questions and detect associations among selected study variables. Moreover, independent t-tests and Chi-square analyses were used to compare the characteristics of the participating facilities with non-participants. Content analysis[19] guided data reduction, coding and analysis of responses to open-ended questions.

RESULTS

Response Rate and Respondents' Background: Of the 45 eligible facilities, 30 completed the survey (67% response rate). A comparison of the participating residential care facilities with non-participants revealed a significantly higher proportion of the larger facilities (t=2.65, P<.01) and members of the Ontario Residential Care Association (ORCA) (X^2=7.61, P<.01) among the participating homes (ORCA is a voluntary, non-profit and self-regulated organization representing approximately 55% of the retirement home sector in Ontario). Over half of the key informants (53%) were directors of care. The remaining 47% were administrators and senior managers. The majority of respondents (76%) had a nursing background. This was followed by 17% with training in other professional disciplines (i.e., management, health and business, psychology, and gerontology) and 7% reporting no post-secondary education.

Facility Profile: Table 1 presents characteristics of the surveyed facilities. These were almost evenly divided between relatively small homes with less than 60 residents (27%), mid-sized homes with between 61 to 100 residents (33%), and larger homes with more than 100 residents (40%). About half of the facilities (47%) were in operation for less than 10 years, with 20% being in operation for less than 2 years. The vast majority (93%) of the participating homes were privately owned, with government subsidy being available in only six homes (20%).

Resident Profile: In all but two of the participating facilities, over 65% of residents were 65 years and older. The proportion of older residents that

Table 1. Selected Characteristics of participating facilities (N=30)

Characteristics	N(%)	Mean (Range)
Resident Capacity		94.2 (10-200)
Years in Operation		11.2 (1-50)
Language of Service		
English only	8 (26.7)	
English & French	18 (60.0)	
English, French & other	4(13.3)	
Member of ORCA[a]	21 (93.3)	
Average Monthly Basic Fee		$1,996.52 ($1,035.00-$3,000.00)
Staff-Resident Ration		
RN/RPN[b]		0.014 (0.010-0.026)
HCA/PSW[c]		0.030 (0.010.0.200)
All nursing/personal care staff		0.044 (0.020-0.226)
Residents Æ 65(%)		89.4 (6-100)

[a]Ontario Residential Care Association
[b]Registered Nurse/Registered Practical Nurse
[c]Health Care Aid/Personal Support Worker

required assistance with personal care (i.e., dressing, grooming, bathing, toileting, eating, and walking) varied among the facilities: 32% indicated that less than one-quarter of their elderly residents were dependent in personal care, 43% reported dependence among 25-50%, and 25% maintained that over half of their older residents required assistance with personal care.

Content analysis of the narrative responses to open-ended questions in this section revealed that most facilities recognized their limitations in providing adequate care to the residents requiring substantial assistance with daily activities. In fact, when asked to describe their admission criteria, 12 facilities (40%) indicated that they would not admit older persons who: a) require more than minimal assistance with basic activities of daily living, b) are dependent in mobility, or c) have a history of dementia, confusion, wandering or aggressive behaviour. However, as pointed out by six key informants, admission criteria do not necessarily reflect the level of care needs of the residents, because as residents "age in place", many experience progressive decline in their physical and cognitive abilities. In fact, with the exception of the newer facilities, all the surveyed homes noted an increase in the age, level of functional dependence, and care needs of their residents in the past 5 years and made similar projections for the near future. These changes were attributed to many factors including population aging, lack of a corresponding increase in the number of acute and long-term institutional beds, and inadequacy of public community services. Table 2 presents some illustrative comments.

Health Service Provision: Table 3 summarizes the most common health services provided. Over 90% of the homes reported providing some basic nursing care (i.e., medication administration, assistance with personal care, and monitoring of vital signs), and 70% had a staff physician. In 53% of the homes, the staff physician held regular on-site clinics. Specialized units, such as dementia care and assisted living units, were available in 23% of the facilities.

Table 2. Participants' illustrative comments about resident profile, service needs, and staff training

Changing Resident Profile:

"Many seniors may not be able to afford residential care, so will have to remain in their homes and hope for increased community assistance. Bed shortage in acute care and long-term care facilities may result in more frail elderly applying to residential care facilities in times of crisis..."

"Those residents whose functional and/or medical status have declined beyond residential care remain with us while they await admission to a long-term care facility (usually for lengthy periods). We are providing many more hours per day of personal care than we ever did."

"We have more residents requiring total care, on nursing home list... we're seeing aging in place, becoming more frail, demanding and unable to cope."

Increasing Burden of Care and Service Needs:

"I have a real concern that retirement homes are gradually becoming more like long-term care facilities. Seniors are living longer and healthier which is good, but when they come to us they are 'frail elderly' at best... assisted living and locked units are being added to retirement homes...."

"The care level of our aging population will only increase in future years. Staffing is a major concern at this time and will not change. Nursing care in this area is in a "crisis" situation."

Barriers to Staff Training:

"We need more local availability of low cost training. I have no formal education budget. We use profits from the Pepsi machine for education."

"There seems to be no time for education as workload increases."

"We need time away from daily tasks...In house training with outside resource personnel."

Table 3. Type of health services available

Services	N (%)
Medication Administration/Supervision	30 (100.0)
Assistance with Personal Care	29 (96.7)
On-Site 24-Hour Availability of RN/RPN[a]	28 (93.3)
Vitals Monitoring	27 (90.0)
Visiting Lab Service	27 (90.0)
Recreational Coordinator	26 (86.7)
Respite Care	25 (83.3)
Staff Physician	21 (70.0)
Foot Care	21 (70.0)
Regular On-site Physician Clinics	16 (53.0)
Visiting Dental Service	14 (46.7)
Special Care Unit (s)[b]	7 (23.3)

[a]Registered Nurse/Registered Practical Nurse
[b]This refers to dementia care and assisted living units

The number of available personal care and nursing staff varied across the shifts and types of staff. For example, while only 17 facilities (57%) had registered nurses (RN) on duty, 20 (67%) had registered practical nurses (RPN), and 29 (97%) had health-care aids (HCA) or personal support workers (PSW). In half of the facilities with RNs, these were available only during the day shifts (Figure 1). The mean licensed nursing staff to resident ratio (in those facilities that had RNs and RPNs on duty) was 0.017 for the day, 0.013 for the evening, and 0.012 for the night shifts. The corresponding figures for the personal care staff (i.e., HCAs and PSWs) to resident ratio were higher at 0.034, 0.032, 0.024 for each shift respectively. Including all classes of nursing and personal care staff, the average staff-resident ratio across the three shifts was 0.044.

It was noted that the size of the facility was positively associated with the average basic fee (r=.42, p<.05) and the total number of services offered (r=.53, P<.01), but it had a negative association with the staff-resident ratio (r=-.36, P<.05). That is, larger facilities had a higher cost and a greater number of health services available, but had relatively fewer nursing and personal care staff per resident. Table 2 presents typical comments made by the participants about the increasing burden of care and service needs in this setting. Although for the purposes of this study information was not collected on the residents' use of external resources, it should be noted that many older residents regularly use the professional and support services of the Community Care Access Centre and other community agencies.

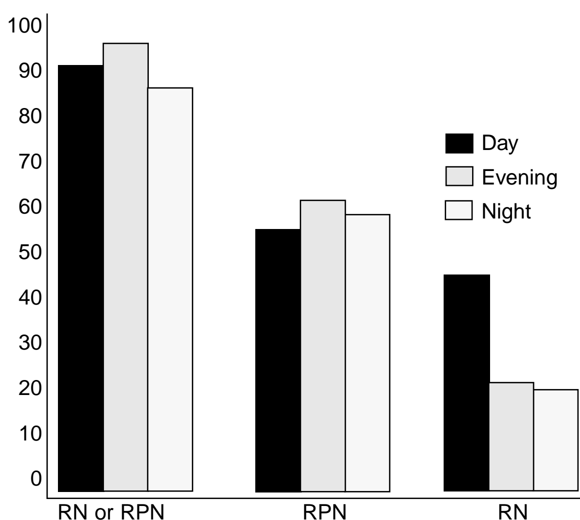

Figure 1. Proportion of residential care-facilities reporting a minimum of one licensed nursing staff in each shift.

Staff Learning Needs: The key informants rank ordered the top priority learning needs of their staff (Table 4). Their narrative comments also revealed some barriers to staff training (Table 2). For example, eight respondents (27%) noted the scarce number of educational in-services offered in their facilities. Five (17%) pointed out that staff are usually required to attend external continuing education programs on their days off and at their own expense. Six facilities (20%) indicated that they do not have any formal educational budget and identified the need for government funding of staff education in residential care facilities. Finally, nine (30%) asked for on-site low cost in-service training by geriatric specialists.

Utilization of the CGA Services: Survey respondents readily acknowledged the benefits of a CGA consultation for residents with complex health needs (Table 5). Fifty percent also believed that such a consultation also bears some costs to the facility. Key informants' perceptions of the benefits, costs and barriers to referral to the CGA services are summarized in Table 5. In a close-ended question with three response options, respondents were

Table 4. Rank order of top priority staff learing needs

Services	N (%)
Management of difficult behaviours	11 (37)
Dementia care	10 (33)
Assessment and management of geriatric syndromes	9 (30)
Monitoring of medical problems	7 (23)
Interpersonal and communication skills	6 (20)
Time and stress management skills	5 (17)
Understanding of aging process	4 (13)
Medication management in the elderly	3 (10)
Knowledge of community resources	3 910)

Table 5. Key informant's views on benefits, costs and barriers to referral to CGA services

Variable	N (%)
Benefits of Referral:	
Better management of resident care	24 (80.0)
Delayed transfer/placement in LTC[a]	24 (80.0)
More accurate diagnosis	16 (53.3)
Cost Referral:	
Increased staff workload	15 (50.0)
Duplication of assessment information	7 (23.3)
Barriers to Referral:	
Lack of awareness	14 (46.7)
Refusal of resident/family	13 (43.3)
Refusal of primary care physician	10 (33.3)
Prior unsatisfactory experiences	3 (10.0)
Inadequate case finding by residential staff	2 (6.7)
Access to CCAC[b] as an alternative service	2 (6.7)
Lack of availability of services in non-official languages	1 (3.0)

[a]Long-Term Care
[b]Community Care Access Centre

asked to select when they would *most likely* refer to the CGA services. The responses were as follows: 60% indicated that they would refer when resident function is significantly affected, 47% said when major problems or crises arise and only 27% reported referring residents on admission if a problem is identified. Finally, survey participants su ggested strategies to improve the initial case finding and referral of at-risk residents and proposed interventions to enhance the implementation of the recommendations made by the CGA services. These included: marketing and awareness raising activities to increase the knowledge of the CGA services and the referral process, particularly among primary care physicians working in residential care facilities (20%); pre-admission, admission or annual comprehensive interdisciplinary assessment of all older residents (10%); more on-site assessment and follow-up of referred residents (23%); enhanced collaboration and communication between the CGA services and the staff of the residential care facilities (17%); and finally, on-site staff education by geriatric specialists (17%).

INTERPRETATION

In interpreting the survey results, the possibility of a non-response bias should be considered. Lower response rates among the smaller residential homes and ORCA non-members resulted in an under-representation of these facilities in the study sample. Moreover, it is possible that some new facilities that were in operation for less than 1 year were not listed in the documents used to draw the study sample. Finally, the survey targeted only a single region in Canada, and therefore, the results may not be generalizable to other geographical areas.

The surveyed facilities were a heterogenous mix of establishments with regard to their size, number of years in operation, admission criteria, cost of care, number and qualification of staff, and type of services provided. The fact that over half of the participating homes were in operation for less than 10 years confirms the rapid proliferation of the residential homes over the past decade. Similar trends have been reported in other Canadian and international studies.[4,6,8] Moreover, as pointed out by the key informants in this survey, multiple factors have resulted in an increasingly impaired population of residential living older adults. Although, on average, older persons living in residential homes have fewer health problems compared to those residing in long-term care facilities (LTC), there is growing overlap in the patterns of care needs in the two settings.[4,5-7,20-21] As acknowledged by the key informants in this survey, most residential homes are not adequately staffed to meet the care needs of an increasingly frail elderly population, nor do they have the resources to adequately address the educational needs of their staff. In fact, it has been argued that despite the changes in the profile of residents in this setting, there has been little improvement in the staff ratio and training opportunities.[5] Inadequate staffing predisposes older residents to greater risk for decline in health and functional status.[3,22]

In the only published Canadian study that compared staffing levels in unlicensed residential homes with LTC facilities in the same geographic area (i.e., Eastern Townships of Quebec), important differences were reported.[4] For example, the average staff-resident ratio in the unlicensed homes was *0.05* (vs 0.044 in our study) compared to *0.39* in the LTC facilities, with a ratio of as low as 0.02 for smaller residential homes. In the current survey, the larger facilities had a higher cost of care, provided more diverse services, but had a lower staff-resident ratio compared to the smaller homes. More research is needed to better explore the relationship between facility size and the levels and patterns of staffing.

Growing public concern regarding the quality of care and health services available in the privately owned unlicensed residential homes has led to recent debates about the standards of care in this

setting.[2] Based on the findings of this survey and the previous literature, a number of strategies can be employed to enhance the capacity of residential homes to provide more accessible quality resident care. These include: a) provision of government subsidies for low income older adults to ensure equal access to these facilities and the supplementary care options that are available at extra cost to the residents, b) inclusion of an appropriate level of government funding to support staff training, c) increased collaboration between the service providers in residential care facilities (i.e., primary care physicians and nursing staff) and the CGA services to better target and manage at-risk residents through the development of validated and practical screening protocols and staff training to improve their assessment and management skills, and finally, d) development of appropriate regulatory models that are flexible and sensitive to the unique characteristics of this divergent group of establishments.[9,10,22-24] Some authors have warned against the strict regulation of residential care facilities that are based on institutional models of care which could result in increased cost, size, and medicalization of care in this setting.[3,25] In particular, the regulations should be sensitive to the unique needs of smaller facilities with more limited resources which aspire to provide family-like care.

To conclude, residential care facilities have become an increasingly important component of the continuum of housing and care for older adults experiencing a decline in their health and function. However, to date, this growing segment of the elderly population has received very little research attention. In particular, there is a paucity of Canadian data on the health profile of this population. This study was an introductory step toward a better understanding of the residents' care needs, staff educational needs, and the potential supportive role of the CGA services in promoting optimal care in this setting. More research is needed to guide policy planning to strengthen the system and enhance the quality of care.

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