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Special Article

International Survey of Nursing Home Research Priorities

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This article reports the findings of a policy survey designed to establish research priorities to inform future research strategy and advance nursing home practice. The survey was administered in 2 rounds during 2013, and involved a combination of open questions and ranking exercises to move toward consensus on the research priorities. A key finding was the prioritization of research to underpin the care of people with cognitive impairment/dementia and of the management of the behavioral and psychological symptoms of dementia within the nursing home. Other important areas were end-of-life care, nutrition, polypharmacy, and developing new approaches to putting evidence-based practices into routine practice in nursing homes. It explores possible innovative educational approaches, reasons why best practices are difficult to implement, and challenges faced in developing high-quality nursing home research.

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There has been a paucity of high-quality research conducted in nursing homes.^{1–6} The International Association of Gerontology and Geriatrics' (IAGG) position paper on nursing homes placed research at a very high priority to improve the status of nursing homes and enhance the quality of care in nursing homes.⁷ Previously, we had

found that 3 different models of nursing homes exist; namely, medical, nursing, and social-driven models.⁸ In this publication from the IAGG nursing home subcommittee, we used the expertise of nursing home experts around the world to prioritize the areas on which nursing home research should focus.

Methods

Integrating knowledge and expertise across a range of stakeholders and disciplines is an essential component of reaching

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consensus on policy directions and is applicable to the identification of research priorities.⁹ Methods for achieving consensus are often framed around Delphi approaches with expert panels and a range of analytical group processes. In this study, we took a pragmatic approach and limited our survey to 2 rounds, with consensus development through simple ranking techniques.

A total of 19 experts on nursing homes from 8 countries were polled by questionnaire to obtain their views on the research priorities for nursing homes. The countries represented were Australia, Canada, China (mainland and Hong Kong), Czech Republic, England, France, Italy, the Netherlands, Scotland, and the United States. First-round participants were asked to respond to 2 open-ended questions:

- List the 5 most important research questions in nursing homes
- What forms of educational approaches should have their effectiveness researched?

In addition, there were 3 forced-choice questions:

- Prioritize the challenges faced in developing high-quality research in nursing homes
- Rank in order of importance why best-care practices based on research are not implemented in nursing homes
- Rank which of the following would be the most useful to incorporate evidence-based practices in nursing homes.

For the last 3 questions, the respondents had the opportunity of providing write-in answers as well.

In answer to the first question, 33 different categories of research were listed. To better delineate the top 15 priorities, the category list was sent back to the respondents for ranking.

Results

The top 15 research priorities are listed in Table 1. Caring for persons with cognitive impairment and behavioral symptoms of dementia were ranked first and second, respectively. Three of the top priorities focused on end-of-life care (effect of palliative [end-of-life] care; advance-care planning, and aggressive treatment withdrawal). Other research questions listed by the nursing home experts but not ranked as highest priority included educational delivery, international survey of nursing home residents, restraint free, incontinence, physician models of practice, management issues, specific groups (Parkinson, Huntington, Down syndromes), effectiveness of inter-professional collaboration, health professional decision making, oral health, appreciative inquiry, iatrogenic conditions, end-stage heart disease, reasons for nursing home admission, optimal role of the

Table 1
Most Important Research Questions to Be Explored in Nursing Homes

Rank	Topic
1	Dementia care
2	Psychosocial interventions BPSD
3	Advance care planning
4	Improving nutrition
5	Polypharmacy
6	Putting evidence-based care into practice
7	Effect of palliative (end-of-life) care
8	Improving quality of life
9	Maintenance of physical and social function (rehabilitation programs)
10	Reduce hospital admissions (transitions)
11	Meaningful daily activities
12	Lifestyle interventions (exercise)
	Frailty
14	Staff turnover
15	Treatment withdrawal

BPSD, behavioral and psychological symptoms of dementia.

advanced practice nurse, spasticity/contractures, and tests for aspiration detection. Information technology and robotics, despite their increasing importance in nursing homes, were not ranked.

The top 7 educational approaches are listed in Table 2. Case-based interprofessional bedside rounds were the top priority. Besides the top 7, other educational approaches listed by the experts included the following: typical “in-service” sessions, critical reflection, mobile geriatrics team, appreciative inquiry, virtual dementia experience, social participatory learning, literacy appropriate education, fun incentives, incorporating families into education, needs assessments, vocational re-education, and small-group consensus.

Inadequate research support from funding agencies and the pharmaceutical industry was the number 1 challenge in developing high-quality research in nursing homes (Table 3). Lack of enthusiasm on behalf of the nursing home administrator was listed as the second challenge.

The top-ranked reasons why best-care practices based on research are not implemented in nursing homes are listed in Table 4. In addition, 41% of the respondents provided another reason. These could be categorized into staff shortages, other issues with administrators, lack of time, research in nursing homes of low quality, poor implementation of knowledge, and inadequate funding.

Alterations in national regulations were considered the most effective methods to lead to the incorporation of evidence-based practices in nursing homes (Table 5). Specific payment for incorporation of new evidence-based research was the only other factor that had high agreement that it would enhance nursing home practice. There were 27.7% of respondents who suggested other approaches, including public support, health care professional support, incorporation into nursing home chain requirements, investment in education, increased number of skilled professionals working in nursing homes, and state or regional requirements.

Discussion

International nursing home experts clearly identified the 2 most important areas for research to be a focus on the needs of cognitively impaired residents, including the management of challenging behaviors and the need to focus on palliative and end-of-life care. Approaches to improving care for the cognitively impaired^{10–16} and issues related to palliative and end-of-life care^{17–19} have been highlighted previously in the *Journal*.

Surprisingly, transitions of care, which has had a large influx of research money in the United States, was considered to be only the 10th most important research area.^{20–23} There is a similar policy drive in the United Kingdom, aimed at reducing the yearly growth of acute hospital admissions. This highlights the fact that research dollars from government agencies are highly focused on reducing costs, particularly by reducing hospitalization. Nursing home experts may not have ranked transitions of care as highest priority moving forward, as this topic has received considerable government attention recently. Alternatively, the relatively low ranking of transitions of care

Table 2
Educational Approaches Whose Effectiveness in Nursing Homes Should Be Researched

Rank	Topic
1	Interprofessional bedside rounds/case based
2	Internet (online) webinars and coaching
3	Education away from nursing home
4	Classroom
5	Video
	Onsite mentoring
	Communities of practice

Table 3
Challenges Faced in Developing High-Quality Research in Nursing Homes

Rank	Topic
1	Inadequate research support from funding agencies/pharma
2	Lack of enthusiasm of nursing home administration
3	Belief research should not be done in vulnerable populations
4	Need for multiple sites for large enough sample size
5	Ethical issues
6	Poor quality of nursing records
7	Lack of availability of specialized equipment

as a research priority may reflect the international nature of the expert group. The Medicare fee-for-service reimbursement strategy often incentivizes toward hospitalization, which may be unique to the United States. Frailty, which is another major IAGG initiative, was listed as the 12th most important research area.^{24,25} The reason for this discrepancy between IAGG goals and nursing home expert consensus is unclear.

The nursing home setting has long been considered an ideal location for medical and interprofessional education. Many educational strategies have been used, but the effectiveness of these strategies has not always been well-studied. These results identify the need to conduct rigorous educational research in the nursing home, particularly of traditional bedside and classroom teaching and online or distance learning. Innovative suggestions for education in the nursing home included communities of practice,²⁶ critical reflection,²⁷ appreciative inquiry,²⁸ and virtual dementia experience.²⁹

Interestingly, difficulty with use of or in implementing best-practice models was considered the number 1 reason for not implementing these models into practice. This suggests that as researchers develop best-care practices, they should focus on ease of implementation and incorporate process evaluations along with effectiveness assessment to increase insight into implementation barriers. Barrier identification and methods of overcoming barriers should be rigorously studied and should be considered equally important research questions. An excellent example of this is the development and implementation of the Cognitive Stimulation Therapy for Dementia program.^{30–33} Changes in national or local requirements for nursing homes and/or specific payment for incorporation of new evidence-based practices into nursing homes may be warranted. It can be frustrating to see how hard it is to widely implement improvements in care and psychosocial interventions. Frequently, neither research funders nor the researchers themselves have either the infrastructure or the resources to get interventions into practice. Governments also have been slow to consider how to improve practice. Regulations and inspections may have a part to play. However, this may mean that nursing homes are asked to do more but without more funding. Such approaches are not the same as positive incentives. In contrast, the pharmaceutical industry has well-developed mechanisms for promoting and marketing new and existing drugs. To significantly improve care, government and business may need to make a concerted effort to collaborate.

The *Journal of the American Medical Directors Association* has an important duty to foster high-quality research in nursing homes,

Table 4
Why Best-Care Practices Based on Research Are Not Implemented in Nursing Homes

Rank	Topic
1	Difficult to implement or use
2	Payers do not pay for best practices
3	Lack organizational support
4	Require change in staff beliefs
5	Not perceived as an improvement
6	Lack of knowledge concerning research

Table 5
Most Useful Approaches to Incorporate Evidence-Based Practices in Nursing Homes in Your Country

Rank	Topic
1	Alterations in national regulations
2	Support from national organizations
3	Specific payment for incorporation of new evidence-based research
4	National leaders to act as change agents
5	Support from owners of nursing homes
6	Mass media
7	Internet education
8	Publication in a respected journal
9	Conferences highlighting new evidence

provide a venue for publication of the results, and be a voice for the nursing home research community in the wider medical environment and will continue to promote excellence. Rather than seeing nursing home research as a lower priority, funders and grant assessors should be aware of their own lifetime risk of admission to a nursing home. Similarly, community angst about quality of care in nursing homes must be channeled into momentum to improve research opportunities through the funding system, not only penalizing poor care through the legal system.

Population aging necessitates a range of responses in which nursing home provision features in many countries. The 2011 IAGG–World Health Organization nursing home development agenda brought into focus the need for evidence-informed practice underpinned by robust research.^{1,7} The reported findings from the international panel of experts has provided further clarification and detail of nursing home research priorities to steer researchers toward areas thought to have the potential for highest impact in the advancement of nursing home practice.

Internationally, the nursing home population is heterogeneous. Some people are there for short-term rehabilitation, some for long-term care, and some for end-of-life care. Nursing home research must take into account this heterogeneity and the individual patient goals of care. Some research may be highly relevant to one subgroup of residents, and irrelevant or even harmful in another group. Overall, we hope that these findings will provide strategic guidance for researchers developing research in nursing homes and can be used to encourage funding agencies around the world to increase funding for meaningful research that will affect quality of care in nursing homes.

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