A significant issue facing today’s acute care nurse is the ability to respond to the rising number of older adults admitted to the hospital, while simultaneously preventing complications of hospitalization, specifically deconditioning. Deconditioning is a process of physiological change following a period of inactivity or bedrest that results in a decrease in muscle mass, weakness, functional decline, and the inability to perform daily living activities (Gillis & MacDonald, 2005; Graf, 2006). It is observed in increasing frequency as a consequence of hospitalization for older adults. Early detection and prevention of deconditioning is acknowledged as a benchmark of good practice. Yet, deconditioning is often unrecognized and undertreated in elderly hospitalized patients (Gillis & MacDonald; Palmisano-Mills, 2007).

Today’s nurses lack gerontological preparation in deconditioning prevention and are unable to understand and meet the needs of older adults entrusted to their care. In addition, many nurses lack confidence or hold negative attitudes and beliefs toward older adult patients that result in obstacles to quality care (Luggen & Meiner, 2001). Lack of gerontological preparation in deconditioning care, low confidence, and inadequate nurse role models create legitimate concerns for those responsible for planning continuing education and professional development opportunities for the nursing workforce. This is especially disconcerting given the increasing number of older adults who will require hospitalization due to acute or chronic disease processes. It is likely that the majority of nurses today will have older adults as part of their case load; hence, it is incumbent for educational and practice settings to ensure that nurses have a defined level of competency in the care of older adults. To do this, nurses’ knowledge of deconditioning in older adults must be assessed and current and relevant continuing education to meet identified learning needs.

**Nurses’ Knowledge, Attitudes, and Confidence Regarding Preventing and Treating Deconditioning in Older Adults**

Angela Gillis, PhD, RN, Brenda MacDonald, MEd, MSc, RN, and Allene MacIsaac, MSc(A), RN

**abstract**

**Background:** This article examines nurses’ knowledge, beliefs, attitudes, and confidence regarding providing care to prevent and treat deconditioning in hospitalized older adults.

**Methods:** Data were collected from 157 registered nurses enrolled in a post-registered nurse, bachelor of science in nursing program using a descriptive cross-sectional survey.

**Results:** Nurses’ responses reflected substantial gaps in their knowledge and theoretical understanding of deconditioning, and a strong belief in the need for more education on the prevention of it. Levels of confidence in preventing deconditioning in older adults were modest, but participants expressed positive attitudes toward nurses’ role in deconditioning care. Barriers to deconditioning care included lack of education, low staffing levels, and a lack of valuing prevention efforts.

**Conclusion:** This study suggests that it is important to establish gerontology continuing education programs with a core component on deconditioning treatment and prevention to enhance nurses’ knowledge and confidence levels in providing care to older adults.

provided. This study explored factors associated with the prevention and treatment of deconditioning in hospitalized older adults.

The purpose of this study was to explore nurses' knowledge, beliefs, attitudes, and confidence in providing care to prevent and treat deconditioning in hospitalized older adults and to identify factors that act as barriers to the prevention and treatment of deconditioning in this population.

LITERATURE REVIEW

There is strong evidence in the literature that focuses on the inverse relationship between activity level, a factor amenable to nursing intervention, and deconditioning in hospitalized older adults (Amador, Reed, & Lehman, 2007; Brown, Friedkin, & Inouye, 2004; Callen, Mahoney, Grieves, Wells, & Enloe, 2004; Graf, 2006). Consistent results suggest that deconditioning and poor functional outcomes remain a serious problem for hospitalized older adults. In a retrospective study of 500 older adults, Lazarus, Murphy, Coletta, McQuade, and Culpepper (1991) reported that during their first 7 days in the hospital, the majority of patients remained in a bed or chair, rarely had physiotherapy, and never performed exercises with a nurse. Similar results were reported by Hardo, Chalmers, and Axon (1993), who surveyed activity levels in a sample of 335 older adults between 11 and 11:30 a.m. on a medical unit. Fifty percent of the patients were found sitting at their bedside and 41% were in bed, suggesting limited activity is provided to older adults in the hospital. Hirsh, Sommers, Olsen, Mullen, and Winograd (1990) reported that 65% of elderly patients admitted to hospitals experienced deconditioning within 2 days of hospitalization; between the second day and discharge, 67% of this group failed to improve and another 10% deteriorated further. A recent study concluded that one third of hospitalized patients 70 years and older showed a decline in activities of daily living associated with deconditioning on discharge (Brown et al.). Callen et al. examined the frequency of hallway ambulation in a sample of 118 older adults on medical units in an academic health science center and concluded that lack of activity during the hospital stay contributed to deconditioning and functional decline. In this setting, hallway walking was low for older patients, with the frequency of ambulation as low for those independent in walking as for those dependent (28% vs. 26%). These findings corroborate the work of others (Mahoney, Sager, & Jalaluddin, 1998; Sager et al., 1996) reporting new walking dependence following discharge from the hospital in samples of independent, community-dwelling adults 70 or older and illuminate the significance of deconditioning as a preventable problem of hospitalized older adults.

To prevent deconditioning, nurses must look for risk factors and intervene proactively. This assumes that nurses have the prerequisite knowledge, skills, and attitudes to recognize and respond to the specialized needs of hospitalized older adults. The literature suggests that many nurses are deficient in this area (Cox, 1999), some lack confidence, and some have problematic attitudes toward the care of older adults (Bryans et al., 2003; Courtney, Tong, & Walsh, 2000). Others view the care of older adults in the acute care setting as the "Cinderella service" because of its lack of status and resources (Chang, Chenoweth, & Hancock, 2003; Reed & Clarke, 1999). Internationally and nationally, there is a growing concern about the lack of nursing expertise to provide care to the fastest growing sector of the acute care setting (Chang & Daly, 2000; Courtney et al.; Gillis & MacDonald, 2005; King, 2005). Researchers have reported that nurses do not have the knowledge and skills necessary to provide quality care to prevent deconditioning and its effects in hospitalized older adults (Chang et al.; Miller, Campbell, Moore, & Schofield, 2004; Walkem, 1995). Significant gaps exist in nurses' knowledge of the older adult and the aging process (King; Luggen & Meiner, 2001). Hence, there remains a need to identify specific deficiencies in nurses' knowledge, attitudes, and beliefs around the care of hospitalized older adults and explore strategies to address the limitations. This study aids in identifying nurses' learning needs and closing the gap. Specifically, the following questions guided this study:

1. What is the knowledge level of nurses related to diagnosis and management of deconditioning?
2. What are nurses' beliefs about risk factors and interventions to treat deconditioning?
3. What are nurses' attitudes toward the prevention and management of deconditioning?
4. What is the confidence level of nurses in providing care to improve or maintain physical functioning in older adults?
5. What is the relationship between nurses' knowledge and confidence in managing deconditioning in older adults?
6. What are the perceived barriers to the prevention of deconditioning in older adults?

METHOD

A descriptive cross-sectional survey was used to assess nurses' knowledge, attitudes, beliefs, and confidence regarding functional decline in older adults. All registered nurses enrolled in the introductory theory courses of a
post-registered nurse, bachelor of science in nursing distance program offered by an undergraduate university on the Eastern Canadian seaboard were invited to participate. The demographics of the sample are included in Table 1.

Measurement
No known standard survey for assessing nurses’ knowledge, attitudes, beliefs, and confidence related to deconditioning in older adults existed. Therefore, the authors developed a questionnaire relevant to the Canadian context. The survey comprised six sections: section 1 measured deconditioning knowledge using a multiple-choice format (Sidebar), while sections 2 to 5 used a 9-point, Likert-type scale ranging from 1 (strongly disagree) to 9 (strongly agree) to illicit participants’ responses to attitudinal and belief statements on deconditioning care. Section 6 measured demographic data using close-ended items. The item breadth and content of the survey were guided by a review of the literature and reflected items used in testing knowledge in gerontological nursing courses, as well as the standards and principles of best practice as outlined by bodies such as the National Gerontological Nurses Association and the Hartford Institute for Geriatric Nursing. A panel of three experts (two nurses and one physician) reviewed the item content of the instrument and made minor changes in format and style. The questionnaire was presented to the University Research Ethics Board and approved. In its final form, the questionnaire required approximately 15 minutes to complete and addressed the following:

Section 1. Deconditioning knowledge comprised 10 multiple-choice items with five alternative answers. Two knowledge domains were tested: diagnosis and management of deconditioning (Sidebar).

Section 2. Beliefs regarding risk factors and interventions used 10 belief statements to assess the respondents’ responses to risk factors (three items) and interventions (seven items) helpful in treating deconditioning. The items used a 9-point, Likert-type scale ranging from 1 (strongly disagree) to 9 (strongly agree). Sample items included: “Bedrest places a hospitalized elderly person at risk for deconditioning” and “Providing therapeutic activities to promote mental stimulation is helpful in treating deconditioning.”

Section 3. Attitudes regarding deconditioning and older adults required respondents to indicate their agreement or disagreement with eight attitudinal items. Sample items included: “It is inevitable for the elderly to become deconditioned when hospitalized” and “Nurses have an important role in the maintenance of physical fitness in the hospitalized elderly.”

Section 4. Barriers to the prevention of deconditioning required respondents to rate six factors that interfered with the prevention of deconditioning in older adults. Sample items included: “There is not enough time to do resistance exercises” and “Elderly clients and family members are not receptive to education about deconditioning.”

Section 5. Confidence in managing deconditioning was measured by a two-item summated rating scale. The items were: “I feel very confident in giving advice to clients about deconditioning” and “I feel very confident in managing the symptoms of deconditioning.”

Section 6. Demographics included items such as age, gender, level of nursing experience, nursing education, and one item on the presence of deconditioning content in their basic nursing program.

Procedure
The survey was mailed to all 310 registered nurses enrolled in a post-registered nurse, bachelor of science in nursing program with a cover letter indicating the purpose of the study and inviting their voluntary participation if their current nursing practice included the

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>SAMPLE DEMOGRAPHICS (N = 157)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey distribution/response rate</td>
<td>310/157 (50.6%)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>150</td>
</tr>
<tr>
<td>Male</td>
<td>7</td>
</tr>
<tr>
<td>Age (yr)</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>22 to 58</td>
</tr>
<tr>
<td>M</td>
<td>45.6</td>
</tr>
<tr>
<td>SD</td>
<td>9.21</td>
</tr>
<tr>
<td>Years of nursing experience</td>
<td></td>
</tr>
<tr>
<td>1 to 4</td>
<td>5.7%</td>
</tr>
<tr>
<td>5 to 10</td>
<td>22.4%</td>
</tr>
<tr>
<td>11 to 19</td>
<td>29.9%</td>
</tr>
<tr>
<td>≥ 20</td>
<td>42.0%</td>
</tr>
<tr>
<td>Nursing hours per week caring for older adults</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>19 to 40</td>
</tr>
<tr>
<td>M</td>
<td>34.2</td>
</tr>
<tr>
<td>Deconditioning content covered in basic nursing program</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>84 (55.6%)</td>
</tr>
<tr>
<td>Yes</td>
<td>73 (44.4%)</td>
</tr>
</tbody>
</table>
Deconditioning Knowledge Quiz for Nurses (Correct Response in Bold)

Please answer the following questions from your current knowledge without consulting colleagues or reference materials. Indicate your answer to each question by checking only one of the responses.

1. Deconditioning has been defined as “physiologic changes following a period of inactivity that may result in functional losses.”
   - I strongly agree
   - I strongly disagree
   - I have never heard the term “deconditioning”
   - This term is vague and unclear
   - I don’t know

2. Deconditioning may occur after:
   - 1 day of bedrest
   - 2 days of bedrest
   - 7 days of bedrest
   - 14 days of bedrest
   - I don’t know

3. Deconditioning may occur to:
   - Anyone
   - Adolescents
   - Adults (20 to 65 years)
   - Elderly (older than 65 years)
   - I don’t know

4. Deconditioning impacts on:
   - The musculoskeletal system
   - The urinary system
   - Every organ system
   - The brain
   - I don’t know

5. Which of the following changes may occur with deconditioning?
   - Delirium
   - Depression
   - Sensory deprivation
   - All the above
   - I don’t know

6. Hospital factors that may contribute to deconditioning are:
   - Too much time in bed
   - Adverse effects of the treatment
   - Restraints (chemical and physical)
   - Multiple factors (illness, restraints, time in bed)
   - I don’t know

7. Deconditioning may be best treated by:
   - Resistance exercises
   - Up to chair three times a day
   - An interdisciplinary model of care

8. Muscles can grow and develop in:
   - All age groups
   - Only adolescents
   - Only adults (20 to 65 years of age)
   - Only elderly (older than 65 years)
   - I don’t know

9. The benefits of strength training are:
   - An increase in bone density
   - An increase in muscle size
   - Reduction in the risk of falls
   - All the above
   - I don’t know

10. Resistance exercises are effective in:
    - Decreasing strength in the very old (87 to 96 years)
    - Increasing gait speed, stair power, and balance
    - Curtailing increase in strength associated with aging
    - All of the above
    - I don’t know

Care of older adults. Completed surveys were returned anonymously by mail. To enhance the response rate, a follow-up mailing was sent to all participants 4 weeks after the initial mailing of the survey questionnaire. According to institutional ethical guidelines, the decision to complete and return the survey constituted consent to participate.

Results
Sample Characteristics
A total of 157 of 310 distributed questionnaires were completed and returned, representing a response rate of 50.6%. The characteristics of the sample are listed in Table 1.

Participants were asked to indicate their exposure to content on deconditioning in their basic nursing courses using a yes-or-no response. Eighty-four (55.6%) of the registered nurses responded no to this item, calling into serious question the need to examine the coverage of gerontology content in nursing programs.

Deconditioning Knowledge
Performance on the knowledge test yielded an overall mean score of 72.8 (SD = 18.7) of 100. The mean score on the diagnosis domain was low (M = 65.0; SD = 24.5), with a higher mean reported for the interventions domain (M = 80.5; SD = 19.9). According to university nursing standards, the knowledge scores received a “C” grading.
Nurses’ Beliefs

Nurses’ beliefs regarding risk factors for deconditioning and beliefs about interventions considered helpful in treating deconditioning are listed in Table 2. Results suggest that registered nurses hold positive beliefs about interventions to treat deconditioning, but they are less cognizant of the factors that predispose older adults in hospitals to deconditioning. Participants scored less than 7 on two interventions considered effective in the treatment of deconditioning: the use of low hospital beds and the monitoring of fluid intake in older adults. They also scored less than 7 on two of the three areas of risk assessment. Participants’ beliefs did not appear to reflect the state-of-the-art practice guidelines for the assessment of deconditioning and the prevention of functional decline in hospitalized older adults in the literature (Amador et al., 2007; Knapp, 1997). For example, the mean score for use of an assistive device as a risk factor leading to deconditioning was only 4.69 and the insertion of a Foley catheter 6.10. Although nurses were cognizant of explicit risks for deconditioning such as placement on bedrest (8.54), they were not aware of common risks that indirectly predispose older hospitalized adults to deconditioning.

<table>
<thead>
<tr>
<th>Risk factors for deconditioning</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedrest</td>
<td>8.54</td>
<td>1.11</td>
</tr>
<tr>
<td>Insertion of a Foley catheter</td>
<td>6.10</td>
<td>2.10</td>
</tr>
<tr>
<td>Using an assistive device</td>
<td>4.69</td>
<td>2.39</td>
</tr>
</tbody>
</table>

Interventions helpful in treating deconditioning

<table>
<thead>
<tr>
<th>Interventions</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical stimulation to help cerebral blood flow</td>
<td>8.1</td>
<td>1.29</td>
</tr>
<tr>
<td>Cognitive stimulation to aid perceptual skills</td>
<td>8.0</td>
<td>1.39</td>
</tr>
<tr>
<td>Therapeutic activities to promote mental stimulation</td>
<td>7.8</td>
<td>1.92</td>
</tr>
<tr>
<td>Monitoring effects of anticholinergic drugs</td>
<td>7.4</td>
<td>1.88</td>
</tr>
<tr>
<td>Resistance exercises three times a week for lower limbs</td>
<td>7.16</td>
<td>1.84</td>
</tr>
<tr>
<td>Use of low rather than high hospital beds</td>
<td>6.10</td>
<td>2.58</td>
</tr>
<tr>
<td>Monitoring of fluid intake</td>
<td>6.6</td>
<td>2.21</td>
</tr>
</tbody>
</table>

*Rating scale: 1 = strongly disagree and 9 = strongly agree. Bold indicates areas for knowledge improvement.

Nurses’ Attitudes

Responses to the attitudinal statements regarding nurses’ roles in the prevention and management of deconditioning for hospitalized older adults are reported in Table 3. The results were encouraging and suggest that, generally, nurses have a positive attitude toward the care of older adults and the prevention of deconditioning in such clients. For example, the majority of nurses strongly agreed that it is possible for the elderly to be physically fit, and most disagreed that deconditioning is inevitable in elderly clients when hospitalized (M = 3.68; SD = 2.63). Furthermore, participants strongly agreed that nurses have an important role to play in promoting and maintaining the physical fitness of older adults.

Nurses’ Confidence

Participants were asked to rate their level of confidence in communicating with and giving advice to clients about deconditioning and its management using a two-item summated rating scale. Cronbach’s alpha coefficient of reliability for the scale was 0.90. The mean score on the confidence scale was 11.8 (SD = 4.4). The possible score range was 2 to 18. Confidence scores across the two items were modest, with a mean score of 6.0 for “talking with clients about deconditioning” and 5.6 for “managing the symptoms of deconditioning.” Overall confidence levels warrant improvement.

Perceived Barriers

A range of workplace factors acted as barriers to the prevention of deconditioning in hospitalized older adults. Table 4 illustrates the relevant prominence of barriers. Of particular note was the strong agreement for “the need for more education on the prevention of deconditioning” (M = 8.37) and “inadequate staffing levels to maintain exercise programs.” In addition, nurses perceived “the lack of time” and the failure to view “preventing deconditioning as a priority” as important barriers. It appears that nurses perceive several barriers to the prevention of deconditioning.

Relationship of Knowledge, Confidence, and Demographics

Knowledge scores were correlated with confidence scores and major demographic descriptors. Total knowledge scores correlated positively with confidence scores (r = 0.38, p = .001, n = 157). There was a modest correlation with confidence scores and experience working with the elderly (r = 0.19, p = .002), but no significant relationships between knowledge, age of participants, gender, or years of experience.
DISCUSSION

This project provides information on registered nurses’ knowledge, beliefs, attitudes, and confidence regarding diagnosing and treating deconditioning in hospitalized older adults. Barriers to the prevention and management of deconditioning have been discussed.

Participants’ scores on the deconditioning test reflected substantial gaps in their knowledge and theoretical understanding of deconditioning. The lower diagnosis score suggests that nurses are not aware of developments in gerontological nursing science related to deconditioning that have occurred during the past decade. These results, although somewhat disappointing, are not surprising and support the findings of other scholars who have reported a general lack of preparation of health professionals to meet the needs of older adults in hospitals (Eliopoulos, 2005; King, 2005; Miller, 2004; Wallace, Greiner, Grossman, Lange, & ‘Troth–Lippman, 2006).

Levels of confidence in this sample were modest, with nurses reporting a total mean score of 11.8 on the two-item index. This lack of confidence has been reported by other researchers studying nurses’ confidence in providing care to hospitalized older adults (Bryans et al., 2003). Limited confidence levels may influence subsequent actions by nurses to respond to the needs of older adults.

Significant efforts have been made to enrich the gerontological curriculum in undergraduate nursing programs in the past decade. However, the majority of nurses currently are 43.4 to 46.7 years old and graduated from programs before formal gerontological education was part of the core curriculum (Baumbusch & Andrusyszyn, 2002; King, 2005). These findings suggest that effective continuing education programs are critically needed to bring knowledge of best practices in gerontological nursing to practicing nurses.

Gerontological continuing education programs should contain a core component on the prevention and treatment of deconditioning. The component should focus on the diagnosis and assessment of risk for deconditioning, prevention interventions, and strategies for patient and family teaching (an area in which nurses lacked confidence). For example, families need to know the physiological and psychological benefits of ambulation for older adults, activities to prevent sensory deprivation,

### TABLE 3

<table>
<thead>
<tr>
<th>Statement</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is possible for the elderly to remain physically fit</td>
<td>8.75</td>
<td>0.67</td>
</tr>
<tr>
<td>Nurses have an important role in the promotion of health and maintenance of fitness in older adults</td>
<td>8.19</td>
<td>1.2</td>
</tr>
<tr>
<td>Teaching the elderly and their families is a high priority in my practice</td>
<td>7.34</td>
<td>2.3</td>
</tr>
<tr>
<td>Health of the elderly is best described as the ability to function autonomously</td>
<td>6.18</td>
<td>2.37</td>
</tr>
<tr>
<td>It is inevitable for the elderly to become deconditioned when hospitalized</td>
<td>3.68</td>
<td>2.63</td>
</tr>
<tr>
<td>It is inevitable for older adults to experience functional decline when hospitalized</td>
<td>4.06</td>
<td>2.6</td>
</tr>
<tr>
<td>It is the physiotherapist’s job to prevent deconditioning</td>
<td>2.51</td>
<td>1.99</td>
</tr>
<tr>
<td>Resistance training exercises are more trouble than they are worth</td>
<td>1.68</td>
<td>1.4</td>
</tr>
</tbody>
</table>

*Rating scale: 1 = strongly disagree and 9 = strongly agree. A lower score indicates a positive attitude.

### TABLE 4

<table>
<thead>
<tr>
<th>Barrier</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education on the prevention of deconditioning is needed</td>
<td>8.37</td>
<td>1.2</td>
</tr>
<tr>
<td>Inadequate staffing is the main reason preventive exercises are not done</td>
<td>6.39</td>
<td>2.3</td>
</tr>
<tr>
<td>Nurses do not see prevention of deconditioning as a priority</td>
<td>5.90</td>
<td>2.3</td>
</tr>
<tr>
<td>Hospital administration does not value prevention interventions</td>
<td>5.61</td>
<td>2.4</td>
</tr>
<tr>
<td>There is not enough time to do resistance exercises</td>
<td>5.46</td>
<td>2.6</td>
</tr>
<tr>
<td>Older clients and family are not receptive to education to prevent deconditioning</td>
<td>3.65</td>
<td>2.07</td>
</tr>
</tbody>
</table>

*Rating scale: 1 = strongly disagree and 9 = strongly agree.
vation, and standards for promoting functional ability and self-care. This information would enhance nurses' knowledge of ways to assess and manage deconditioning with older adults, as well as increase nurses' confidence levels in interacting and teaching clients and family members about ways to prevent functional decline in older adults.

It is encouraging that participants had positive attitudes toward the prevention of deconditioning in older adults. This, coupled with their strong belief in the need for more education on the prevention of deconditioning in the elderly, suggests that continuing education or in-service training on deconditioning would be well received by nurses.

Knowledge scores were positively related to confidence scores. It is reasonable to assume that more knowledgeable nurses will be more confident in providing advice to clients and family members about deconditioning and in managing the symptoms of deconditioning. Nurses' confidence levels and the relationship between knowledge and confidence are important to consider when planning continuing education sessions. Nurses working in health care today face increasing responsibility for older adults, whether in the acute care environment or in the community setting. Hence, it is important that continuing education programs empower staff to maximize their knowledge to identify adults at risk for deconditioning and enhance their confidence to intervene appropriately to manage it.

At a minimum, continuing education programs should enable nurses to understand the "cascade to dependency" and ways to prevent it (Creditor, 1993). Such dependency is a well-documented process leading to disability and occurs when an adult who has undergone normal aging changes is hospitalized with bedrest. Efforts to prevent the cascade to dependency include creation of elderly-friendly environments, consistent and planned sensory stimulation, promotion of self-care activities such as ambulation and regular participation in activities of daily living, patient education on the benefits of exercise and ambulation and the hazards of functional decline, and the avoidance of physical restraints and medications that sedate older adult patients (Graf, 2006). Application of this knowledge by registered nurses will enable quality outcomes for hospitalized elderly to become the norm in practice settings.

The importance of reorienting health care delivery for older adults needs to be recognized and incorporated into strategic planning by continuing education departments. A possible strategy to reorient health care for older adults is the establishment of a universal deconditioning prevention program as a component of hospital orientation and continuing education programs (Knapp, 1997). In much the same way as hospitals implement universal precautions for infection control purposes, Knapp proposes that hospitals could practice universal deconditioning precautions leading to improved care for all adults older than 65. Strategies to promote preventive care with a focus on early ambulation should be core content in gerontological continuing education, given the speed with which functional decline can occur in hospitalized older adults.

Participants held strong beliefs about barriers to their prevention efforts in providing deconditioning care. Barriers identified, such as lack of educational content on deconditioning, low levels of registered nurse staffing, insufficient nursing interventions, and lack of time, were consistent with other reports that have considered care for hospitalized seniors (Gordon, 2007; King, 2005; Titler et al., 2007). Many of the barriers are interrelated and may be influenced by the collective action of nurses and management. For example, nurses identified low valuing of prevention interventions by staff and hospital administration. This suggests that management and staff need to reevaluate the importance of prevention efforts. This valuing could be demonstrated by efforts to empower staff to provide best practice in gerontological care through participation in gerontological continuing education programs. Valuing necessitates providing adequate funding and resources to nursing units to enable continuing education on preventive interventions and a carefully coordinated approach to care of older adults.

The allocation of adequate staff and sufficient staff time to engage in promotion activities in the hospital setting is essential if deconditioning is to be prevented and managed appropriately. This finding supports the work of researchers such as Graf (2006), Callen et al. (2004), and Titler et al., who challenged hospital administrators to recognize that hospital-acquired functional decline is a poor outcome. They called for the allocation of resources to institute ambulation programs for older adults on medical units just as patients on surgical units have postoperative ambulation routines.

Allocation of resources must incorporate adequate staffing numbers and time allowances for attendance at state-of-the-art continuing education sessions on deconditioning. Given the robust relationship between nurse staffing and patient outcomes (Canadian Institute of Health Research, 2004), it is likely that staffing with an adequate number of appropriately prepared gerontologically educated registered nurses will help to prevent deconditioning in older hospitalized adults.

As hospitals will care more for older adults than any other population in the future, it is important to establish
key points

Deconditioning

1 Low confidence scores and limited knowledge of deconditioning in older adults are legitimate causes of concern for those responsible for planning continuing education and professional development opportunities.

2 Effective continuing education programs on deconditioning prevention are critically needed to bring knowledge of best practice to nurses who are currently providing care to hospitalized older adults.

3 The importance of reorienting health care delivery for older adults needs to be recognized and incorporated into strategic planning by continuing education departments.

best practices in gerontology continuing education programs and implement them consistently to improve the knowledge level of registered nurses. This will enhance nurses’ confidence levels in providing quality care to the elderly in acute care settings. By doing so, resources will be wisely used to provide the quality of care older adults deserve.

REFERENCES


