Continued Need for Increased Emphasis on Aging in Dietetics Education

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ABSTRACT
This study examined the content on aging in dietetics curricula via the Internet and a follow-up questionnaire. Only 14% to 15% of programs were not online. The 203 undergraduate and 88 graduate program Web sites listed 44 (22%) undergraduate and 39 (44%) graduate courses in aging. However, more maternal and child courses were listed. The number of undergraduate aging courses was similar to the 20% reported in 1989, although methodologies differed among the studies. Life cycle and community nutrition courses had the most aging content. More than half of program directors were not satisfied with the aging curriculum content. Integrating aging material into existing courses was the most acceptable way of increasing aging content. The common barriers were “curriculum already full” and “lack of faculty expertise.” As the nation’s changing demographics are reshaping the dietetics marketplace, a greater emphasis on aging would enable students to be more effective in serving this booming population.


Eighty-seven percent of older Americans have chronic diseases that can be ameliorated or reduced with appropriate nutrition therapy, and 40% of community-residing older adults have inadequate nutrient intake (1). The Institute of Medicine noted, “Evidence exists to conclude that nutrition therapy can improve health outcomes for several conditions that are highly prevalent among Medicare beneficiaries...” (1).

Registered dietitians were identified by the Institute of Medicine as the single group with the standardized education and clinical training necessary to be directly reimbursed through Medicare as providers of nutrition therapy (1). However, the low knowledge, attitudes, and work preferences toward older adults in a study of 299 dietetics students at 10 universities indicated a widespread need for improved education about aging (2).

The American Dietetic Association (ADA) position paper on aging recommended more education on aging to meet demographic projections (3). ADA Standards of Practice have outlined competencies for working with older adults (4,5). The emphasis continues to be on evidence-based practice, and new studies are defining the effectiveness of nutrition therapy in diverse settings serving older adults (6-8).

In 1987, Shoaf and Kotanchek first questioned the quantity and type of experiences with older adults in dietetics internships and coordinated programs (9). Shoaf and Jensen found insufficient didactic and experiential training in aging in undergraduate programs in 1989 (10). This study used an Internet approach to examine the content on aging in dietetics curricula and included a follow-up questionnaire.

METHODS
This study began with a national online search for the 339 didactic undergraduate (n=235) and graduate (n=104) dietetics programs in the ADA’s Directory of Dietetics Programs, 1999-2000 (11). Because the focus was on undergraduate curricula, graduate programs were reviewed online only if an undergraduate program was listed. From online catalogs or Web pages, aging-related nutrition courses were recorded. Other variables, such as maternal and child courses, university/college membership in the Association for Gerontology in Higher Education (AGHE), and campus presence of a gerontology program or center, were also recorded. Data collection was dependent on the sophistication of each Web site’s search engine.

To verify the aging-related courses identified online, program directors were contacted electronically or via facsimile. A reminder was sent a month later. Response rates were 47% from undergraduate (n=95) and 43% from graduate (n=38) directors. The closed- and open-ended questions probed curricular details and faculty...
aging expertise. If there was no response from a director, the online data were used as published.

The Statistical Package for the Social Sciences (version 10.0, 1999, SPSS Inc, Chicago, IL) was used for descriptive data analysis.

Finally, syllabi of nutrition and aging courses were requested from 51 undergraduate and 35 graduate directors. Permission to post online was requested.

RESULTS AND DISCUSSION

Online Curricular Information

Online information was collected from 203 (86%) undergraduate and 88 (85%) graduate dietetics and nutrition programs. In these programs, 44 (22%) had undergraduate (mainly upper division) and 39 (44%) had graduate courses in aging. The 22% of undergraduate aging courses was similar to the 20% reported in 1989 (10). Because 85% of curricula were available online, it allowed comparison with the 1989 study, although methodologies differed considerably. Studies of curricula in health and social service disciplines have shown inadequate student preparation in aging (12-17).

There were, however, more maternal and child courses (31% undergraduate, 51% graduate), and these topics generally had a higher priority in the curriculum. A similar emphasis on pediatrics vs geriatrics in US medical schools has been called a national crisis, ie, all 125 US medical schools have pediatric departments, but only three have geriatric departments (18).

About half of the universities studied had gerontology programs and were members of AGHE; 22% had gerontology centers. These centers, programs, and/or affiliations offer opportunities to improve curricular content in aging through team teaching, guest lectures, curricula models, etc. Wallace and colleagues found a weak but not significant relationship between the strongest aging curricula in public health programs and the presence of gerontology centers (15).

Program Director Responses

More than half of program respondents were not satisfied with the current curriculum content on aging (Table 1). Similarly, most physical therapy education programs affirmed a need for more aging content (13).

Integrating aging material into existing courses was the most acceptable way of increasing aging curriculum content in undergraduate and graduate programs. Other methods included written assignments, field experiences, and development of a new course. Integration into current courses was also the most popular suggestion for increasing aging content by nursing and physical therapy programs (12,13).

The most commonly perceived barrier to implementing any changes in both undergraduate and graduate programs was “curriculum already full.” These findings are similar to those of 14 years ago, when 49% of coordinated dietetics programs without an aging course would not consider adding one because of time constraints, lack of faculty, and satisfaction with current curriculum (10).

Responses indicated that programs had one to 33 full-time and part-time undergraduate faculty (nonadjunct). When asked “How many full- and part-time dietetics and nutrition faculty members in your department have a background or research interest in gerontology/geriat-

Table 1. Perceptions about aging curricula content from dietetics and nutrition program directors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=94)</td>
<td>(n=38)</td>
</tr>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Satisfaction with current curriculum content on aging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not satisfied</td>
<td>51</td>
<td>54</td>
</tr>
<tr>
<td>Satisfied</td>
<td>38</td>
<td>41</td>
</tr>
<tr>
<td>Undecided</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>How they would increase curriculum content on aging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrate aging material into current courses</td>
<td>70</td>
<td>75</td>
</tr>
<tr>
<td>Have written assignments and field experiences</td>
<td>51</td>
<td>54</td>
</tr>
<tr>
<td>Develop new course, gerontologic/geriatric</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td>The curriculum does not need any changes</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Perceived barriers to increasing gerontologic/geriatric content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum already full</td>
<td>65</td>
<td>69</td>
</tr>
<tr>
<td>There are no barriers</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Lack of funds</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Lack of faculty expertise</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Student resistance/lack of interest</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Faculty resistance/lack of interest</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

*a n=95; one program director did not answer the three questions in Table 1.
*b Respondents could select one or more choices.
The 14 syllabi that were collected and posted (see http://www.fiu.edu/~nutreldr) included four undergraduate, seven graduate, and three combined level courses. All submitted syllabi were posted in keeping with the philosophy of the 1995-96 AGHE Program Development Committee that “faculty could do their own evaluation of the usefulness of one another’s syllabi” and that posting all would best supplement the three Nutrition and Aging courses listed in the two-volume AGHE Collection of Syllabi for Courses in Aging (20).

Many national groups have called attention to the need for improvements in aging education to meet the nation’s geriatric health care shortage (18,21-23). The ADA environmental scan found that the nation’s changing demographics are reshaping the marketplace for dietetics (24). As a result, aging recently became an ADA strategic focus.

### CONCLUSIONS

The profession now has a compelling mandate to improve education in aging. The following actions are suggested:

- A national aging summit should be convened to allow experts to determine content areas and domains for dietetics education.
- Education programs should reconsider the balance among the study of life cycle groups. Because life cycle and other courses spend relatively little time on older adults, the requirement of a nutrition and aging course should be considered.
- Dietetics educators should more fully incorporate aging into existing nutrition courses and field experiences. Interdepartmental teaching of aging may be needed. Course assignments can be improved to enhance learning about older adults.
- Faculty development, including externships in older adult wellness and varied care settings, would generate

### Table 2. Inclusion of aging content in undergraduate dietetics and nutrition courses reported by program directors (n=95)

<table>
<thead>
<tr>
<th>Course title</th>
<th>No. of courses</th>
<th>None</th>
<th>Minimal</th>
<th>One Lecture</th>
<th>Two or More Lectures</th>
<th>Assignment or Field Experience</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>70</td>
<td>2</td>
<td>3</td>
<td>29 (41)</td>
<td>16 (23)</td>
<td>15 (21)</td>
<td>6</td>
</tr>
<tr>
<td>Life cycle nutrition</td>
<td>64</td>
<td>0</td>
<td>0</td>
<td>7 (11)</td>
<td>3 (5)</td>
<td>38 (59)</td>
<td>14</td>
</tr>
<tr>
<td>Community nutrition</td>
<td>78</td>
<td>0</td>
<td>0</td>
<td>17 (28)</td>
<td>6 (8)</td>
<td>39 (50)</td>
<td>24</td>
</tr>
<tr>
<td>Nutrition therapy</td>
<td>87</td>
<td>7</td>
<td>8</td>
<td>41 (47)</td>
<td>4 (5)</td>
<td>17 (20)</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>8 (47)</td>
<td>3 (18)</td>
<td>2 (12)</td>
<td>3</td>
</tr>
</tbody>
</table>


*Includes Community Nutrition, Community Nutrition and Education, and Family and Community Nutrition. Respondents could select one or more choices.

*Includes Medical Nutrition Therapy, Diet Therapy, Clinical Dietetics, Clinical Nutrition, Clinical Nutrition and Disease, Diet and Disease, Nutrition and Disease, Nutrition in Health and Disease, Therapeutic Nutrition and Assessment, Nutritional Aspects of Disease, Therapeutic Nutrition, Advanced Nutrition, Applied Nutrition, and Diet Selection and Planning. Respondents could select one or more choices.

*Includes Nutrition Assessment, Nutrition Counseling, Nutrition Education, and Macronutrients/Micronutrients. Respondents could select one or more choices.

- In graduate programs, the second most commonly perceived barrier was lack of faculty expertise in aging. Other barriers for graduate programs included lack of funds, faculty resistance/lack of faculty interest, and student resistance/lack of student interest. Studies in health disciplines found similar barriers (13,19). Graduate program respondents (n=38) reported one to 37 departmental faculty, with 37% having two or more faculty in gerontology/geriatrics; 26% having one faculty; and 37% having none.

Although the response rates (47% undergraduate, 43% graduate directors) limit generalization, only 14% had undergraduate courses on aging, compared with the 22% found in the online review. Thus, it is possible that respondents were more concerned than the overall population of undergraduate directors about the lack of material on aging in the curricula.

### Aging Content in Dietetics and Nutrition Courses

Life cycle and community nutrition had the most aging content in the form of two or more lectures (Table 2). Other courses, such as those in nutrition and nutrition therapy, had minimal content. Although methods differed between this and the 1989 study, these findings contrast the earlier study, which found more aging content in basic nutrition courses than in other nutrition courses (10).

### Aging Course Syllabi

The 14 syllabi that were collected and posted (see http://www.fiu.edu/~nutreldr) included four undergraduate, seven graduate, and three combined level courses. All submitted syllabi were posted in keeping with the philosophy of the 1995-96 AGHE Program Development Committee that “faculty could do their own evaluation of the usefulness of one another’s syllabi” and that posting all would best supplement the three Nutrition and Aging courses listed in the two-volume AGHE Collection of Syllabi for Courses in Aging (20).

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- Dietetics educators should more fully incorporate aging into existing nutrition courses and field experiences. Interdepartmental teaching of aging may be needed. Course assignments can be improved to enhance learning about older adults.
- Faculty development, including externships in older adult wellness and varied care settings, would generate
excitement that could enhance classroom teaching about aging. Interdisciplinary curricula models can be developed, implemented, evaluated, and disseminated (25,26).

- Dietitians working with older adults must see themselves as change agents who can influence the education and training in local programs. As role models, they should have more interactions with students and faculty.

- Students should be exposed to the heterogeneity of aging, from healthy, active older adults to dependent institutionalized people. For example, the Older Americans Act Nutrition Program has shown the positive impact of nutrition by providing meals and other nutrition services in homes and community dining centers (27). Phase II-III cardiac rehabilitation facilities can expose students to recovering patients making lifestyle changes in diet and exercise. Nursing home rotations can prepare students to provide clinical care to the very old and can provide dynamic management and foodservice experience. Positive experiences have improved student attitudes and increased interest in working with older adults (28,29).

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References


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