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Geriatric Care Boot Camp: An Interprofessional Education Program for Health Care Professionals

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Abstract

In response to the need for interprofessional geriatrics education, a half-day geriatric care boot camp for health care professionals was held that covered core concepts in geriatric medicine: delirium/dementia, medication management, palliative care, ethics, and a general overview of the geriatric patient. Aspects of the curriculum focused on interprofessional education, and the attendees and presenters themselves were interprofessional. Primary objectives were to determine changes in knowledge of core concepts in geriatrics and level of comfort in caring for older adults. Secondary objectives assessed whether participants found the interprofessional approach beneficial, and whether they used and/or shared this information with others in their professional activities.

Participants completed pre- and post- assessment surveys. Changes in participants' understanding of each core concept were statistically significant, as was the change in comfort level of participants in caring for older adults. Furthermore, attendees reported the multidisciplinary perspective of the boot camp beneficial.

A 3-month follow-up survey assessed whether attendees applied/shared information learned in their own professional activities. Core concepts were universally shared by 50% of the respondents who reported sharing. Delirium/dementia information was most frequently shared. Information was most frequently shared with students, nurses and patients' families. Attendees less frequently shared, or did not share, with physicians, physician assistants, social workers, physical and occupational therapists, nutritionists, and dentists. The health care professionals who may benefit greatly from future education programs are those with whom the boot camp information was least frequently shared; thus, they are appropriate targets for advertisements for future programs.

Keywords

interprofessional education; geriatrics; information dissemination; interdisciplinary health team

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INTRODUCTION

Teamwork is essential when caring for geriatric patients,¹ and interprofessional educational teams create a learning experience that mimics interprofessional practice in the health care setting. Interprofessional education for health care professionals on geriatric care is crucial to improved care in older adults. The World Health Organization has stressed the importance of training health care professionals using an interprofessional approach, which involves two or more professions learning about, from and with each other to promote collaboration and improve health care.² The National Center for Interprofessional Practice and Education, formed in 2012, advised interprofessional education and patient care will improve the quality of care, patient outcomes, and cost.³

There is a lack of interprofessional education on caring for older adults, despite its necessity for quality care.⁴ A 2008 Institute of Medicine report concluded “the education and training of the entire health care workforce with respect to the range of needs of older adults remains woefully inadequate.”⁵ The Partnership for Health in Aging notes most health care professionals “have not had sufficient opportunities to learn with, from, and about other healthcare professionals”.⁴

Furthermore, there is a shortage of health care providers who are well-qualified to care for older adults in different health care settings,⁵ and it appears the number of health care professionals who lack such knowledge will increase. U.S. Department of Labor statistics indicate occupations like physicians, nurses, and occupational therapists show strong growth in the next decade although there is no plan to expose them to principles of aging and geriatrics during their training.⁶

The need to educate health care professionals on geriatric care issues is paramount in Florida, as there is a significant population of individuals over the age of 65 who reside there. In 2010, the percent of people over age 65 was higher than in any other state.⁷ Thus, the University of Florida (UF) has a long-standing commitment to caring for older individuals. The mission of the UF Department of Aging and Geriatric Research and Institute on Aging is to “improve the health, independence and quality of life of older adults by means of interdisciplinary teams in the areas of research, education, and health care.”⁸ To achieve this mission, the Department’s Division of Career Development & Education is committed to interprofessional education of health care professionals and seeks to foster its trainees “to become future leaders, researchers, and clinicians in geriatrics and aging research to improve the health and quality of life of older adults.”⁹

In response to the need for interprofessional education for health care professionals, a team of faculty and staff from the Division designed, implemented, and evaluated an intensive interprofessional education program on core concepts in geriatric care for health care professionals in diverse fields. The primary objectives were to determine changes in knowledge of these core concepts and changes in level of comfort in caring for older adults. The secondary objectives were to assess whether the attendees found the interprofessional

approach to be beneficial, and whether the attendees used the information learned at boot camp in their practice or shared it with others.

METHODS

A review of intensive education programs on geriatric care offered by other institutions was undertaken. Other institutions have implemented boot camps on geriatrics; however, not all were intended for an interprofessional audience (i.e. they were intended only for nurses, or medical residents). Others covered a limited set of topics (i.e. focused on dementia only) or were offered over the course of many days.^{10–14} These programs are effective and critically important but indicate there is still room for other fully-integrated interprofessional approaches to geriatrics education that include a variety of topics, learners, and instructors. Furthermore, there is a need for interprofessional education that is intensive and efficient, considering the heavy clinical demands of potential participants. For these reasons, we developed an intensive interprofessional education program, called boot camp, for health care professionals. The project received IRB approval via expedited review; the IRB waived the requirement to obtain signed informed consent from attendees.

Program Description

The boot camp was conducted as a pilot program. Out of respect for the busy schedule of health care professionals, we elected to conduct an intensive education program over the course of a half-day rather than conduct a multi-day conference or series of lectures over a period of time. Event advertising targeted health care professionals affiliated with the institution who interact with and care for older patients.

Our interprofessional program development team selected core concepts in geriatric care, including characteristics of the geriatric patient, delirium and dementia, medication management, palliative care, and ethical issues, for presentation at the boot camp. These core concepts were selected based on the team's own expertise and the geriatrics core competencies of various health care fields.¹⁵ Local experts (including program development team members) presented on each core concept. A Nurses Improving Care for Health system Elders (NICHE) program¹⁶ nurse educator gave an overview of the geriatric patient, a geriatrician presented on delirium and dementia, a clinical pharmacist presented on medication management for geriatric patients, a palliative care physician presented on palliative care for geriatric patients, and a bioethicist facilitated an interactive discussion about ethical issues that may arise when caring for geriatric patients. Specific objectives of the individual presentations were to enable participants to:

- Identify specific characteristics of the geriatric patient;
- Distinguish the key elements of both delirium and dementia;
- Demonstrate understanding of medications and changes in interactions in the older patient;
- Describe the principles of palliative care related to the geriatric population; and
- Recognize ethical issues in geriatric care.

The boot camp was designed to be an engaging and interactive program that combined traditional didactic sessions and experiential, discussion-based learning. While the sessions on delirium and dementia, medication management, and palliative care were lecture-based, the overview of the geriatric patient and ethics case discussion offered attendees an active learning experience. These various learning strategies were implemented based on how well the session content could be adapted for a didactic or interactive experience and how comfortable presenters were in using the approach. For example, the overview gave attendees the opportunity to use visual aids such as colorful glasses that limited their site and simulated different visual deficits experienced by many older adults. The case discussion involved the presentation of real cases with all protected health information removed, and gave attendees the chance to talk about how they would handle various ethical challenges, such as withdrawal and withholding of care, and elder abuse, that arise when caring for older patients.

Each core concept was covered in a 30–45 minute session, for a total of five sessions. To provide participants with resources they could reference at a later time, binders with the presenters' slides and room for notes were distributed to each participant at the beginning of the event.

Assessment

A pre- and post- boot camp assessment were administered immediately before and after the event, and attendees were emailed a 3-month follow-up survey. The pre- and post-assessments measured changes in attendees' comfort level in caring for geriatric patients as well as changes in knowledge about the issues presented. Attendees were asked to answer questions using a 5-item Likert scale about how comfortable they were with caring for older adults and how much they believed they knew about each core concept. The pre- assessment alone included other questions that asked about attendee demographics including their professional title and academic degree(s), whether attendees had prior training in geriatrics, and what their goals were in attending the program. One of the most important questions asked was on the post- assessment alone, which inquired whether attendees found the multidisciplinary (i.e. interprofessional) nature of the boot camp beneficial. Many survey questions were designed based on the boot camp's learning objectives; others solicited information that could be used to design and market future educational programs.

The data were recorded from the pre- and post- assessment, entered into Sigma Stat, and a paired t-test was run on each question to compare change in knowledge of and comfort in caring for geriatric patients after attending the boot camp.

Three months after the boot camp, a follow-up survey was disseminated electronically to all attendees to inquire whether (and how) they applied information they learned to their own professional activities and whether (and how) they shared the information with others.

RESULTS

After advertising for approximately three weeks prior to the program, 52 individuals registered, and of those, 39 attended. In addition, 5 people registered on-site for a total of 44

attendees. Of the 44 attendees, 43 completed the pre- assessment survey; all 44 completed the post- assessment survey. The participation of 44 health care professionals proved to be manageable and permitted robust, interactive discussion throughout the program.

Boot camp participants represented a variety of professional fields; however, the majority reported representing the nursing field (nearly 40% of all attendees). Pharmacy and research coordination were the next most frequently reported degrees or professional titles. Participants' reported professions are provided in Table 1. Three of the 44 attendees identified as students, including a graduate student who had already earned an MD and MPH.

Of the 43 respondents who completed the pre- assessment survey, 11 (26%) reported never having had training in geriatrics prior to attending the boot camp. The type of training the other 32 attendees reported having undergone includes NICHE training,¹⁶ school programs, and other continuing education programs or conferences. On the pre- assessment tool, attendees were asked to write personal goals they hoped to achieve by attending the boot camp. Responses included:

- "Learn more about caring for geriatric patients";
- "Learn more to better understand older patients";
- "Refresh knowledge and network with other professionals interested in geriatrics";
- "Gain confidence in my skill set as it relates to working with this population"
- "Learn what is new in the field of geriatric care"; and
- "Be better educated in order to pass information on fellow staff members."

Changes from pre- to post- assessment on each question about attendees' knowledge of each of the core concepts were statistically significant. Attendees' change in comfort level in caring for older patients was also statistically significant, as noted in Table 2.

In response to a post- assessment question asking attendees to indicate whether they would be interested in attending another boot camp, topics they would like to see covered, and general feedback about the event, 32 participants either explicitly stated they would be interested in attending another boot camp event and/or suggested topics they would like to see covered (see Table 3). Others were nonresponsive to the question; no one explicitly reported being uninterested in attending another boot camp event.

All 44 attendees reported on their post- assessment survey they achieved their personal goals for the boot camp. Additionally, 34 participants (77%) strongly agreed the multidisciplinary nature of the boot camp was beneficial. Comments about the program on the post- assessment included:

- "I really appreciate the team approach, hearing other professionals discuss these issues";
- "I can now identify specific issues regarding care of the older adult";

- “I feel more confident in my understanding of medical issues that are faced by elderly patients”;
- “Obtained lots of helpful info and handouts that can be taught to unit staff to ease/facilitate into practice”; and
- “I have handouts to reinforce and refer to.”

There was a 50% response rate to the 3-month follow-up survey, with 22 of 44 attendees responding. Of the 22 respondents, 15 completed and submitted the survey and 7 partially completed the survey. Eleven of 17 respondents (65%) said they applied information they learned in the boot camp to their own professional activities, and the same number also reported sharing with others information they learned in the boot camp. The majority of those who reported applying information they learned reported applying and sharing information about each of the core concepts taught in the boot camp. Information related to delirium and dementia was most frequently shared with others. Overall, information from the boot camp was most frequently shared with students. Nurses and patients’ families were also populations with whom boot camp attendees often shared information. Attendees less frequently shared, or did not share, information with physicians, physician assistants, social workers, physical and occupational therapists, nutritionists, and dentists.

DISCUSSION

The pilot boot camp program answered the need for interprofessional education on geriatric care issues and represented an important step by the Division in expanding its educational offerings to health care professionals. The interprofessional approach provided the opportunity for collaboration in the program development process, as a faculty member on the program development team has a primary appointment in the Department of Community Health & Family Medicine and another has a Veteran’s Affairs hospital appointment.

We designed the boot camp for a broad population as we were unsure what health professions the attendees would ultimately represent. We therefore based the core concepts covered on the competencies of a variety of health care fields.¹⁵ Many boot camp attendees were nurses, which is understandable given that this population of healthcare providers is on the forefront of providing care to geriatric patients; however, there was solid representation of attendees from a variety of health care fields.

Our literature review indicates most health care professionals likely have limited learning experiences about geriatric care in interprofessional settings. The qualitative responses to our pre- assessment survey question about type of prior geriatrics training undergone supports this finding; for example, 7 of the 17 nurses (41%) who attended the boot camp reported having undergone NICHE training, which is intended only for nurses. This learning experience was interprofessional because of the proximity of different health care professionals to each other as well as program content. For example, in the ethics discussion attendees were informed they represented a variety of health care professions and the goal was to suggest possible approaches for different members of the care team. The importance of collaboration and communication in problem-solving were emphasized.

An unexpected group of attendees were those involved in research. While we anticipated interest in the boot camp would come primarily from clinical healthcare professionals, we learned through their attendance that the research community and administrative professionals identified a need for a better understanding of the geriatric patient. This finding emphasizes the need to target the clinical care and research communities for future boot camps.

Individuals clearly expressed their goals in attending the session, which were commensurate with the boot camp's learning objectives. Because all attendees said they met their professional goals in attending, we conclude the information presented was useful and of interest even to the 74% of attendees who had previously undergone some level of training in geriatrics.

We conclude based on the number of attendees who shared information about delirium and dementia in geriatric care that this is an important topic to cover in interprofessional geriatrics education. Furthermore, because information was not indicated to have been shared with physicians, physician assistants, social workers, physical and occupational therapists, nutritionists, and dentists, we may target these professions when advertising future educational programs to ensure dissemination of geriatric care knowledge to these health care professionals.

We will use attendees' suggested topics and other post-assessment comments to design future boot camps. Furthermore, future assessment surveys will use the term "interprofessional" rather than "multidisciplinary" when asking attendees about their experience with the program; although sometimes used interchangeably,¹⁷ we want to emphasize the difference between them. Namely, interprofessional "refers to interactions between team members" and multidisciplinary "refers [] to a group of people who come from different health [] professions but who do not necessarily interact".¹⁷ We will emphasize this difference to reinforce the importance of collaboration among health care team members.

CONCLUSION

There is interest in and need for interprofessional education on geriatric care; the curriculum delivered at the boot camp improved health care professionals' knowledge of and comfort in caring for older patients. The program development team will work to develop curricula for future boot camp on other topics relevant to geriatric care.

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Table 1

Boot Camp Attendee Demographics

Field	Number of Attendees By Field, N = 44	Percent of Total Attendees
Nursing	17	39%
Research Coordination	5	11%
Pharmacy	5	11%
Medicine	3	7%
Psychology	2	5%
Physical Therapy	1	2%
Dentistry	1	2%
Other Faculty ^a	4	9%
Other ^b	5	11%
Not Reported	1	2%

^a Other faculty: 3 attendees with PhDs and 1 with a master's degree

^b Other: 1 office manager, 1 program coordinator, 1 bioscientist, 1 staff educator, 1 communications professional

Table 2

Attendee Knowledge and Comfort Level

Question	Pre-assessment average score	Post-assessment average score	Change	P-value
How comfortable are you caring for geriatric patients? ^a	3.88	4.27	0.39	0.025
I have an understanding of how to generally care for geriatric patients. ^b	3.95	4.25	0.30	0.048
I have an understanding of how to care for geriatric patients with delirium or dementia. ^b	3.21	4.11	0.89	<0.001
I have an understanding of how to address medication management/polypharmacy issues that exist for geriatric patients. ^b	3.18	4.07	0.89	<0.001
I have an understanding of the ethical issues that may arise when caring for geriatric patients. ^b	3.68	4.30	0.62	<0.001
I have an understanding of the palliative care issues that exist when caring for geriatric patients. ^b	3.55	4.34	0.79	<0.001

^a Scale: 1 = very uncomfortable; 2 = uncomfortable; 3 = neither uncomfortable nor comfortable; 4 = comfortable; 5 = very comfortable

^b Scale: Scale: 1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

Table 3

Attendee Suggestions for Future Boot Camp Topics, Grouped by Category

Topic Category	Number Suggesting Topic
Palliative Care or Pain Management	7
Geriatric Care in Diverse Settings	5
Social Work Issues	3
Pharmacy Issues	2
Co morbidities	2
Other ^a	6

^a Other suggested topics: cultural diversity, elderly as research subjects, legal issues, vendors with available resources for older patients, and pediatrics