Geriatrics Education and Training Experience in the United States

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Over the last several decades great strides have been made in the United States to meet the needs of an aging American population. This paper reviews the development of geriatric medicine in the United States, which is characterized by leadership and investment from both the public and private sector. The establishment of the National Institute of Aging, as well as, Centers of Excellence and initiatives from the Veterans Administration supported the development and growth of geriatric medicine training programs. While significant advances have been made, we continue to be faced with the challenge of an aging population and not enough geriatricians to care for them. Current strategies will need to intensify geriatric training at the medical student level and teach all physicians, regardless of specialty, how to take care of older patients.

Key Words: Geriatric medicine, United States, training, Education

INTRODUCTION

In many industrial countries the expansion of lifespan over the last century has been a great success story. In 1900, there were an estimated 3.1 million Americans over the age of 65 in contrast to 35.6 million in the present. By 2030, it is estimated that 71 million Americans will be over age 70. Most importantly, the “old-old” population has grown significantly. Currently, there are an estimated 4 million Americans over the age of 85, and this figure is expected to increase to 20 million by 20501).

With the growth of the old-old population, there will be a dramatic increase of the number of patients with multiple chronic illnesses, frailty, and special healthcare needs. These patients are different from younger patients, and their needs need to be addressed by physicians with knowledge in geriatric medicine.

HISTORY OF GERIATRIC MEDICINE

The history of geriatric medicine is characterized by the establishment of the field of geriatric medicine and knowledge base by physicians and academicians, followed by governmental initiatives and decisions to establish funding for research and education, as well as, support from several private sector foundations to further geriatric education, and thus, improve the healthcare for older Americans3). The first American geriatrics textbook was published in 1914 by a private physician, I. L. Nascher. 1935 saw the establishment of the Social Security Act (pension plan for the general population), and in 1965, Medicare was enacted into law. Medicare established universal government-funded health insurance for persons over age 65 and the disabled. In the 1940s and 1950s, geriatricians and gerontologists continued research, often at nursing homes and chronic disease hospitals. The 1940s saw the establishment of the American Geriatric Society and the Gerontological Society of America; and in the late 1960s, the first United States
fellowship in geriatric medicine was established and funded philanthropically.

In 1974, the United States Congress granted the authority to form the National Institute on Aging (NIA) to provide leadership in aging research, training, and health information dissemination. The mission of the National Institute on Aging was to support high quality research of the aging processes, age-related diseases, as well as, special problems and needs of the aging. Further, the NIA was to train and develop highly-skilled research scientists and communicate with the public and other interest groups on research advances and new directions for research. The critical step of establishing the NIA by Congress together with a series of national reports by the Institute of Medicine, and initiatives, both governmental and privately funded, led to rapid expansion of geriatric medicine training.

In the 1970s, the Veterans Health Administration (responsible for healthcare benefits of American veterans) estimated that about 9 million World War II veterans would be over age 65, thus prompting initiatives to improve and establish foundations for the appropriate care of these elderly veterans. Today the Veterans Health Administration remains the most important source of funding for geriatricians in the United States.

The Institute of Medicine is a not for profit institution with honorific membership that advises the nation on matters of biomedical science and health.

The first Institute of Medicine report in 1978, titled “Aging and Medical Education” focused on the curricula on aging for medical students and residents and recommended establishing gerontology and geriatrics as academic disciplines within all relevant specialties. While in Great Britain, geriatric medicine had been established as a specialty, academic leaders and practitioners in internal medicine and family practice opposed the idea, stating that the care of the older adult was central to their practice. A compromise was reached for geriatrics to be a recognized discipline within relevant medical specialties.

The second Institute of Medicine report in 1987, promoted the idea of “Centers of Excellence” to rapidly develop training capacity to train leaders in geriatric medicine.

The third report of the Institute of Medicine in 1993, was titled “Strengthening Training in Geriatrics for Physicians”, and recommended expanding training for the primary care physicians and placed new emphasis on training medical subspecialists, non-primary care physicians, and surgical specialists.

**CENTERS OF EXCELLENCE**

Facilitated by public and private funding, centers of excellence were established in the United States as a means to do research for geriatric medicine education at all occupational levels, as well as, to help families cope with symptoms of Alzheimer’s disease. There are currently 29 Alzheimer’s disease centers, publically funded via the National Institute on Aging and several private foundations mainly the John A. Hartford Foundation and the Donald W. Reynolds Foundation, which established initiatives that addressed the critical shortage of geriatricians, the coaching and funding of physicians interested in pursuing careers in geriatric medicine, as well as, funding geriatric medicine programs for medical students, residents, and practicing physicians. These initiatives were successful in providing many scientists, clinicians, and teachers in the field.

**GERIATRIC MEDICINE FELLOWSHIP TRAINING**

Geriatric medicine fellows are graduates of internal medicine or family medicine programs who pursue specialization in geriatric medicine. The 1980s saw a rapid expansion in geriatric fellowship programs, increasing from a few to 93 programs in 1986. Currently, there are over 120 geriatric fellowship programs with the capacity to graduate 250 to 300 geriatric specialists per year. The goals of geriatric medicine training are to promote specialized knowledge that focuses on quality care and safety for elderly persons with the ultimate goal to improve independence, quality of life, and when appropriate, productivity for our aging citizens.

To this end, the American College of Graduate Medical Education published revised requirements for geriatric fellow-
Table 1. Fellowship training in geriatric medicine, USA: American College of Graduate Medical Education requirements for geriatric fellowship programs

<table>
<thead>
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<th>Program content-clinical competence in the field of geriatrics including:</th>
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<tr>
<td>▪ Physiology, pharmacology of aging</td>
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<td>▪ Pathophysiology common to older persons</td>
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<tr>
<td>▪ Atypical presentations of illnesses, geriatric syndromes</td>
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<td>▪ Functional assessment</td>
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<td>▪ Assessment of cognitive and affective states</td>
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<tr>
<td>▪ Concepts of treatment and management in acute care, long-term care, community and home settings</td>
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<td>▪ Psychosocial, economic, ethical and legal issues</td>
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</tbody>
</table>

Source: American College of Graduate Medical Education

Table 2. Fellowship training in geriatric medicine, USA: American College of Graduate Medical Education requirements for geriatric fellowship programs

| ▪ Care provision in non-institutional long-term care setting (home visits, assisted living, day-care) |
| ▪ Home visits and hospice care, continuity experience                                      |
| ▪ Didactic and clinical experiences in geriatric psychiatry                                    |
| ▪ Interdisciplinary relationships with other specialties: rehab medicine, neurology, psychiatry |
| ▪ Teaching opportunities to other health professionals and trainees                           |
| ▪ Program must provide objective competence assessment (fellows and faculty)                  |
| ▪ Fellows must be involved in performance improvement activity                                |

Source: American College of Graduate Medical Education

Fellowship training in the United States typically covers multiple settings (Table 2), including in geriatric medicine, consultation in the inpatient or emergency room setting of acute care hospitals as part of a geriatric medicine consultation program. At least 33% of the fellow’s time is to be spent in ambulatory care, which may include home care, home hospice, and adult day or outpatient geriatric rehab. Long-term care, including subacute medical care and rehabilitation, is another important aspect of fellowship training. It covers pertinent areas for this setting including clinical and ethical dilemmas of the very old and the role of physician as an interdisciplinary team member in the long-term care setting. Fellows are to become skillful in interaction and communication with families and caregivers and understand administrative aspects, as well as, the role of palliative care and hospice care in long-term care.

Finally, fellows are to engage in didactic and clinical experiences in geriatrics and psychiatry as well as look at interdisciplinary relationships of other specialties such as rehab medicine, neurology, and psychiatry. Fellows are to develop skills as teachers and are to engage in teaching opportunities to other health professionals and trainees such as nurses, allied health personnel, medical students, and residents. Geriatric medicine fellows must be involved in a performance improvement activity of their choice.

The average cost per trainee in 2006-2007 was about $49,000 at the Veterans Administration Hospital. Main funding for fellowship programs is from Medicare (national healthcare insurance for patients above age 65) and the Veterans Admini-
nistration system. In addition, 27% of fellowships report external support from gifts and foundations. The length of the fellowship programs was originally two years, but has since been shortened to one.

Since 1988, there is a specialty examination given both by the American Board of Internal Medicine and Geriatric Medicine. This certifying examination recognizes academic and practicing geriatricians, and both internists and family practitioners need to maintain their specialty board certification.

CURRENT CHALLENGES

While the 1980s and 1990s saw a rapid expansion of geriatric medicine fellowship programs, since the year 2000, the number of fellows in geriatric medicine has been declining, and the number of fellows going beyond the clinical years and pursuing academic development has also been dropping. Neither internists nor family practitioners are pursuing geriatric medicine fellowships in large numbers. For example in 2006, 9491 physicians graduated from family medicine and general internal medicine programs, but only 3% entered a geriatric fellowship program. The situation for psychiatrists and geriatric psychiatry fellowship programs is similar. Currently in the United States, there are, on average, 3.8 geriatricians per 10,000 patients over the age of 75.

The low numbers of physicians pursuing specialization in geriatric medicine is in contrast to relatively high job satisfaction. Geriatric medicine physicians are highly satisfied with their work compared to other specialties. However, the compensation figures show that general internists beginning clinical salary is actually higher than the beginning clinical salary of geriatricians who have additional training. It is felt that low reimbursement has to do with the majority of elderly patients being Medicare patients, which is the national health insurance and pays less than comparable private insurance. This is especially problematic since the average medical student has a $100,000 debt coming out of medical school with these numbers actually rising.

In summary, the geriatric medicine training gap appears to be widening.

SOLUTIONS TO THE GERIATRIC MEDICINE TRAINING GAP

Research has shown that early teaching through enthusiastic faculty can have an impact on students to decide for a career in geriatric medicine. The Institute of Medicine Report, the American Geriatrics Society, and a number of foundations are focusing now to solidify and improve geriatric medicine training in medical school.

The American Geriatric Society has established student chapters and the American Federation for Aging Research has a medical students geriatric scholarship program for over 550 students. The American Federation for Aging Research has research scholarships and the AGS has established a summer institute in geriatric medicine. These are personal limited grants of about $4,000 each to do research with and have exposure to qualified geriatric faculty. In 2000, the Hartford Foundation spearheaded the “Geriatrics Curriculum Grants Initiative” for innovative curricular development. Forty 2-year grants were given to worthy medical schools in the same year. Again, in the same year, the Reynolds Foundation Initiative allotted ten 4-year grants of 2 million dollars each to medical schools such as the University of Rochester’s Double Helix Program (that combines clinical and scientific training for medical students in geriatrics throughout all four years). Another program funded is the University of Michigan’s “geriatrics portfolio”, which is prepared by medical students to document their four-year learning in geriatrics. Virtual Hospital by the University of Iowa offers web-based teaching modules on geriatrics to medical students and practicing physicians and prepared digitalized lecture training modules are also available to practicing physicians.

“GERIATRIFICATION”

Graduate Medical Education reviews show that in 2007, only 33 out of 98 specialties (including internal medicine subspecialties and excluding pediatrics) had specific geriatric medicine requirements. Notable specialties without specific requirement for training in geriatrics were ophthalmology, general
surgery, neurology, dermatology, and otolaryngology. This is in contrast to the reality of medicine showing that the majority of visits by elderly patients (57%) in 2005 were with specialists, not primary care physicians and geriatricians, who saw 43% of the geriatric patient population.

Assuming current growth in the elderly population, the number of geriatricians to Americans over 75 will decrease to 1.6 per 10,000 population in 2050. Possible solutions are to change the reimbursement system by Medicare to one that reflects the increased burden on the medical provider, not only to treat the illness but also to care manage the patient.

It is pretty clear that there will never be enough geriatricians to take care of all the frail elderly patients, thus geriatric educators will need to embark on a campaign to “geriatrify” our colleagues (Table 3).

Geriatrification of our colleagues will mean that we will need to teach them how to think like geriatricians: think about geriatric syndromes as opposed to just diseases, define goals in care in relation to functional outcome and quality of life, and consider the environment, family and care giver, and the culture much like in pediatrics when treating a patient.

CONCLUSION

In conclusion, the demographics of the United States are such that we need to be prepared for a large number of frail and elderly persons in the U.S. The history of geriatrics in the U.S. is characterized by a unique cooperation between physicians, government, and private foundations with a goal to improve health and quality of life for our elderly American citizens.

While significant advances were made, we go forward with a serious challenge of an older, frailer population and not enough geriatricians to take care of them all. The solution will require the efforts of geriatricians to teach the important principles of geriatric care to physicians in training, as well as, to our colleagues in other specialties.

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