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REVIEW ARTICLE

Geriatric Medical Education and Training in the United States

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Medical education in geriatrics is an important requirement to ready the profession to provide comprehensive health care to the world's and also Taiwan's aging population. The predoctoral curricula and postdoctoral training programs in the United States were developed and supported by government agencies and professional education societies. Geriatric medical education in American medical schools has improved in the past 20 years, yet is still facing many challenges. The purposes of this paper are to review the current progress of, and propose some main principles and policies for the development of geriatric medical education and current progress in the United States. Geriatric medical education should be mandatory to adequately prepare medical students, residents, fellows, and practicing physicians to treat the elderly. The current progress and practice of geriatric medical education at the University of Texas Health Science Center at San Antonio are presented as an example. [*J Chin Med Assoc* 2005;68(12):547–556]

Key Words: aging population, chronic disease, education, geriatric medicine, geriatrician

Introduction

Recent demographic data indicate an increase in the number of the world's older population and predict it will continue to grow throughout this century.[1–4] In fact, Taiwan's population is aging more rapidly than the Taiwanese government expected. In 1993, the elderly constituted more than 7% of the Taiwanese population, becoming an "elderly society" per the U.N. The proportion of Taiwan's elderly population, about 2 million people in 2000, could reach 24%, about 5.2 million, by 2051.

Substantial advancements in medical and pharmacologic therapies, as well as health promotion and disease prevention in the world's industrialized countries during the past 50 years have resulted in more older people living longer than ever before.[2–4] Medical professionals have both a demographic and economic imperative to provide more elderly with state-of-the-art, quality, and comprehensive health care. Indeed, having made significant progress in increasing the accessibility of medical care to the population under the policy of a "National Health Insurance Program", the government in Taiwan now should be responsible and committed to guide the health care system toward higher efficiency and quality.[5] Thus, geriatric medical education is an important part of this endeavor.

Medical care of the elderly population differs from that of the general population due to many age-related physiologic changes, chronic diseases, physical and mental disabilities, and social problems. Therefore, special knowledge, attitudes and skills are required to provide health care to the elderly. Today, it is more

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urgent than ever before to prepare current and future physicians to appropriately treat the elderly as the so-called "baby boomers" (born between 1946 and 1964) rush to their retirement age (65 years old) in the next few years. In this report, we review the need for geriatric education to adequately prepare medical students, residents, and practicing physicians to treat the elderly. The development of geriatric medical education in the United States (U.S.) is briefly reviewed. In addition, the current progress in geriatric medical education in a U.S. medical school (the University of Texas Health Science Center) at San Antonio is provided as an example.

Geriatric Medical Education/Training

Current expert consensus suggests that geriatric medicine should be an integral part of general medicine, rather than a specialty. Primary care physicians should be able to treat the majority of older patients, and geriatrics should be taught in the undergraduate curriculum, in residency programs across all specialties except pediatrics, and in continuing medical education programs.[6] However, a special group of academic physicians receiving advanced geriatric fellowship training is needed to teach generalists throughout medical education, to serve as consultants to practitioners who treat frail and functionally dependent elderly patients, and to conduct research in geriatrics.[7]

Curriculum Development in Geriatric Medicine

The need for medical education in geriatrics was first acted upon in the late 1970s in the U.S. with the development of predoctoral courses and topics in geriatric medicine, followed by Geriatric Medicine (and Dentistry and Psychiatry) Fellowship Programs. Many of these fellowship programs have been funded by the Bureau of Health Professions (BHPr) of the Health Resources and Services Administration (HRSA) of the U.S. Public Health Service and by the U.S. Department of Veterans Affairs (DVA). In the 1980s, the National Institute on Aging awarded a number of Geriatric Leadership Academic Award grants to clinical and basic science faculty seeking to improve the geriatrics content in their predoctoral curriculum in medical school. The University of Texas Health Science Center at San Antonio (UTHSCSA) received one of these. In addition, BHPr/HRSA funded the first 4 Geriatric Education Centers (GECs) in 1982, followed by 16 more in 1985. The UTHSCSA received one of these as well, and established the South Texas Geriatric Education Center (STGEC), still in existence as the South, West and Panhandle Consortium, Geriatric Education Center of Texas (SWAP-C GEC). Initially, the primary goal of the GECs was to train faculty of medicine, nursing, dentistry, and allied health, in interdisciplinary geriatrics. Through the years, the mission of GECs has been expanded to include predoctoral and postdoctoral continuing education, and collaboration with other education programs (such as the geriatric fellowships). In the 20 years of its existence, the STGEC has developed more than 160 hours of programs in geriatrics and trained more than 24,000 health care professionals from a variety of disciplines.

In 1988, the U.S. DVA funded a Geriatric Research, Education and Clinical Center (GRECC) in San Antonio at the Audie L. Murphy Division (ALMD) of the South Texas Veterans Health Care System (STVHCS). The STGEC and the GRECC work very closely to develop programs to improve geriatric medical education at all levels of training.

The BHPr/HRSA held a National Forum on Geriatric Education and Training in 1995. White papers were developed by leaders in geriatrics and health care for the Forum and included a number of recommendations to improve the training, distribution, utilization, and quality of personnel required to staff the U.S. health care system.[8] Tables 1–7 detail these recommendations in predoctoral medical education; resident training; fellowship training; faculty training; continuing medical education and certification requirements; adequate reimbursement for clinical services, faculty support, and community providers as well as faculty recruitment and development; increasing the numbers of minority providers; improving access to care for underserved populations; improving research support; and education evaluation.[8]

In 1981, Robbins et al published *Geriatric Medicine: An Education Resource Guide*.[9] In 1998, the American Geriatrics Society published *Guidelines for Fellowship Training in Geriatrics*.[7] In these publications, the primary educational goals, core educational content and special objectives for geriatric medical education are clearly stated. Also, the prerequisites, sequence, faculty and facilities needed to implement the curriculum are discussed. The essential topics in geriatric medicine are delineated in Table 8.[7,10]

Table 1. Major recommendations for geriatric predoctoral medical education[8]

All medical students should receive gerontologic and geriatric education during the preclinical years, with a formal curriculum in all relevant disciplines.

1. Increase the curricular requirements in geriatrics in both preclinical and clinical training, including care for elderly in acute and chronic settings, supervised by trained geriatricians.
2. Increase the amount of test material on the United States Medical Licensing Examination™ (USMLE) in specific skills and knowledge of geriatrics and gerontology.

Table 2. Major recommendations for geriatric postdoctoral medical residency education[8]

1. Geriatrics should be an integral component of the curriculum for all residency training programs except pediatrics.
   a. Dedicated geriatrics curricula should be included in all appropriate residency programs, consisting of general clinical geriatrics and information relevant to the specialty.
   b. Residency Review Committees of the Accreditation Council for Graduate Medical Education and the Administration on Aging should develop specific guidelines for geriatrics training; and failure to comply with guidelines should be considered a major deficiency when the Residency Review Committees review training programs.

2. Direct and indirect Graduate Medical Education funding for residency training positions should be contingent upon the provision of substantial education in geriatrics, including experiences in ambulatory and chronic care settings. Training program directors and sponsoring clinical sites should control funds for resident training.

Table 3. Major recommendations for geriatric postdoctoral fellowship education[8]

1. Geriatricians are generalists providing primary care to adults during the last part of the lifespan. All discussions or actions concerning health care delivery and primary care training must include geriatrics.
   a. Increase direct Graduate Medical Education stipends in number and amount for fellowship positions in geriatrics.
   b. Include geriatrics in decisions regarding primary care workforce targets and allocation of training positions.
   c. Designate geriatrics as a “shortage” specialty, with special advantages for trainees (e.g. loan-forgiveness programs, visa waivers).

2. Geriatrics fellowship training should continue to be supported and expanded. Improved methods for recruitment should be developed.
   a. Applicants most likely to choose primary care should be selectively recruited by medical schools.
   b. Medical school programs that sustain and expand interest in geriatrics should continue to be funded.
   c. Geriatrics fellowship training programs should receive additional resources to develop academic infrastructure, as well as sufficient resources to expand current teaching activities.

3. The training of academic geriatricians and geriatricians who serve leadership roles in the community should be funded by all sources of geriatric medical care, including Medicare Graduate Medical Education, capitation programs and fee-for-service programs.

Table 4. Major recommendations for geriatric postdoctoral medical faculty, continuing medical education, and certification requirements[8]

Faculty training

Development of additional mid-career fellowship training programs is necessary to promote the retraining of non-geriatrics faculty seeking to become academic geriatricians, and must include stipend support consistent with current faculty salaries.

Continuing medical education

1. Continuing medical education for generalist physicians should include geriatrics content, emphasizing geriatric syndromes and care of the frail elderly.

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Table 4. Major recommendations for geriatric postdoctoral medical faculty, continuing medical education, and certification requirements[8]

2. Continuing medical education programs in geriatrics should use innovative training technologies for dissemination to practicing physicians, including distance learning techniques and technology linkages that include geriatric academic programs, community organizations, and practitioners.

Certification requirements

Geriatrics content should be included in certifying examinations for physicians, appropriate to their medical field.

1. Increase involvement of geriatricians in the writing of certifying examinations for both allopathic and osteopathic physicians.
2. Require that geriatrics questions on all certifying examinations be in proportion to the time spent in the specialty.

Table 5. Major recommendations for reimbursement for clinical services, faculty support, and community providers[8]

Reimbursement for clinical services

Reimbursement for geriatrics clinical services should be increased to reflect the complexity of care and increased time required for appropriate care of older patients, including services in nontraditional locations, including nursing homes and home care.

Faculty support

Funding mechanisms to support early academic career development and retention for junior faculty in geriatrics should be expanded, including financial support for protected research time, and increased support for senior mentors.

Community providers

Increase training of non-academic geriatricians for management and leadership roles in the community and in emerging health care networks that provide care to older adults.

1. Increase funding for mid-career mini-fellowship experiences to provide management and leadership training, including continuous quality improvement training, for physicians in expanded roles.
2. Encourage cooperative efforts between academic geriatrics programs and managed care and long-term care systems to provide physician training.

Table 6. Major recommendations for faculty recruitment and development[8]

1. Funding to support extended special geriatrics training for generalist and specialist faculty should be increased, including financial support to faculty who attend these training programs.

2. Education in geriatrics for medical students, residents, and fellows must include interdisciplinary clinical teaching by faculty from multiple health professions involved in the care of older persons.
   a. Provide funding for and require participation by faculty from multiple health professions in medical schools and residency programs.
   b. Mandate training experiences for students and Graduate Medical Education trainees on interdisciplinary teams.
   c. Require clinical teaching by faculty from multiple health professions relevant to the care of older persons for medical students, residents and geriatrics fellows; emphasize cooperation and coordination among these faculty in teaching patient evaluation and management.

3. Short-term special geriatrics training should be provided for community-based clinical faculty.

Table 7. Major recommendations for minority providers and underserved populations, research support, and education evaluation[8]

Minority providers and underserved populations

1. Funding initiatives should prioritize recruitment and training of greater numbers of minority primary care providers with knowledge and skills in geriatrics.

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Table 7. Major recommendations for minority providers and underserved populations, research support, and education evaluation[8]

2. Funding initiatives in geriatrics training should emphasize educational experiences with underserved populations, including cultural or ethnic minorities, the uninsured, nursing home residents, and homebound and rural elderly.

Research support

Support should be increased for research studies investigating geriatric syndromes, systems of care, and outcomes assessment.

Education evaluation

1. A portion of dedicated federal agency or other funder dollars should fund separate, independent evaluation projects.
   a. Independent evaluation projects should consider both process and outcomes of geriatric education and training programs at all levels.
   b. Evaluation of recruitment strategies should be funded.

2. Results of these evaluation projects should be collated and distributed to education and training projects.

Table 8. Core content in geriatric medicine curriculum[7,10]

Biology of Aging

Includes genetic, biochemical, and cellular theories of aging process.

Psychosocial Aspects of Aging

1. Normal Behavior (includes cognitive function, psychomotor performance, human sexuality, personality and adjustment, illness behavior)
2. Demography and Epidemiology
3. Public Health and Policy Issues (includes national or international health policies and issues related to health care delivery to the elderly)
4. Medical Ethics and Law
5. Social Resources and Programs (includes health, financial, and social support systems)
6. Attitudes Toward the Elderly (includes societal, health care provider, and individual biases and beliefs about aging and the aged)
7. Interaction of Biopsychosocial Factors

Geriatric Disorders and Problems

1. Anatomy and Physiology (of aging processes in organ systems)
2. Pathology and Pathophysiology (of diseases and disorders relevant to the elderly and the aging process)
3. Epidemiology and Natural History (of diseases and disorders relevant to the elderly and the aging process)
4. Assessment and Management (of diseases, disorders, and symptoms with emphasis on how the assessment and management approach to the elderly differs from other age groups)
   a. CNS and Special Senses
   b. Musculoskeletal
   c. Cardiovascular
   d. Pulmonary
   e. Genitourinary
   f. Gastrointestinal
   g. Endocrine and Metabolism
   h. Hematologic/Immunologic
   i. Oncologic—Benign and Malignant Tumors
   j. Oral Cavity
   k. Homeostatic Disorders
   l. Integumentary
   m. Psychiatric
   n. Common Symptom Complexes (anorexia, insomnia, pain syndromes, fatigue, dizziness, syncope, weight loss, constipation, urinary incontinence, blindness, deafness, confusion, disorientation, memory loss and intellectual impairment, other)

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Table 8. Core content in geriatric medicine curriculum[7,10]

5. Common Problems (evaluation and management approach to problem/s relevant to the elderly)
   a. Evaluation for Surgery
   b. Choice of Anesthesia
   c. Accidents and Falls
   d. Hazards of Hospitalization
   e. Iatrogenic Problems
   f. Nutrition Problems
   g. Behavioral Problems
   h. Social Problems

Assessment and Management of the Elderly

1. Interviewing and Functional History
2. Communication and Interpersonal Skills
3. Physical Examination (including oral) of the Elderly Patient
4. Special Clinical Tests
5. Clinical Decision Making
6. Record Keeping
7. Preventive Medicine
8. Clinical Pharmacology
9. Rehabilitation
10. Health Care Team/Coordinated Interdisciplinary Care
11. Continuity of Care
12. Continuum of Care/Health Care Delivery Alternatives
13. Humanistic Care

Geriatric Education, Administration, Research

1. Program Development and Evaluation
2. Basic Principles and Teaching Approaches
3. Educational Skills
4. Research Design and Methods
5. Research Skills (biomedical, psychosocial, health services, educational)
6. Literature Review/Interpretation
7. Program Administration

Postgraduate Training Programs

Since the late 1970s, several geriatric training programs have been initiated by U.S. federal government agencies. These agencies include the National Institute on Aging, the DVA, and the HRSA. The U.S. federal government not only recognizes the need for physicians specially trained in geriatrics, but also realizes that oral health is a mirror of general health.[6,10,11] Compromised oral health increases the risks for mortality and morbidity, and sacrifices quality of life in the elderly.[6,10] Therefore, through a U.S. Congressional mandate, geriatric medicine and dentistry fellowship programs were developed by BHPr/HRSA in 1987. Recognizing the need for cross-training between medicine and dentistry, BHPr formed a physician–dentist advisory committee to develop a list of learning objectives in geriatric dentistry for physician and dentist fellows. Both medical and dental fellows in these programs are cross-trained. Geriatric fellowships and faculty training projects are offered in the fields of medicine, dentistry and psychiatry (mental/behavioral science). These programs offer clinical, research, teaching, and administrative training in geriatrics.[12]

More recently, the John A. Hartford Foundation's *Program in Aging and Health* supported projects designed to have a positive impact on the elderly's quality of life, and to render academic progress in the field of aging into practices that benefit all elderly. The program focuses on 2 major areas: *Academic Geriatrics and Training*, and *Integrating and Improving Services for Elders.* In 1998, the UTHSCSA received one of these 5-year *Academic Geriatrics and Training* program grants and has been focusing on family and community medicine resident training, as well as supplementing geriatric medicine fellowship training.

Also in 1998, the San Antonio GRECC of STVHCS was awarded a *Palliative Medicine Fellowship Program* from the VITAS Healthcare Corporation Fund at Dade Community Foundation in Miami, Florida.

In 2001, the GRECC was awarded one of the first U.S. DVA *Special Fellowship Programs in Advanced Geriatrics*. This program is designed to further the geriatrics education, particularly in research, of *Geriatric Medicine Fellowship Program* graduates. In 2002, the GRECC was awarded a DVA *Interprofessional Fellowship in Palliative Care*. These GRECC programs are administered through the Division of Geriatrics and Gerontology in the Department of Medicine at the UTHSCSA, along with our *Geriatric Medicine, Dentistry, and Psychiatry Fellowship Program*. Each year since the establishment of the GRECC, the STGEC and the GRECC cosponsor an annual continuing education program in geriatrics, 1–2 days long, for community practitioners.

Geriatric Medicine Fellowship Program Description

There are 6 categories of detailed objectives by which structure and curriculum of the program are guided and by which effectiveness and individual proficiency of the program are also judged. Because the objectives are so numerous and specific, they are grouped by the broad goals they serve. The first objective affirms the BHPr goals and objectives of improving access to quality health care by preparing adequate numbers of health care professionals to provide primary and supportive/consultative geriatric care. The second objective supports the BHPr goal of improving access to a diverse and culturally competent and sensitive health care workforce through recruitment and retention of minority trainees and faculty. Educational goals and objectives require that each fellow become an education leader in geriatric medicine, psychiatry or dental medicine with knowledge and skills appropriate for teaching a broad range of health professionals, and that each fellow be prepared for an academic career by the completion of his/her training. Clinical goals and objectives state that each fellow will become a skilled physician or dentist geriatrician who demonstrates competence in diagnosis and management of health and diseases in elderly patients and who models the primary care practice of geriatric medicine, psychiatry or dental medicine. In addition, each fellow will become an effective member and manager of an interdisciplinary team caring for elderly patients. Research objectives specify the steps by which each fellow will develop the necessary skills required to critically analyze published research, conduct information syntheses, develop a research project and prepare findings for presentation/publication. Administrative objectives require each fellow to acquire the knowledge and skills required, firstly, to become a medical/dental director of a skilled nursing facility and, secondly, for clinical program development, conduct, direction, evaluation, and revision.

The didactic curriculum is comprehensive in its coverage of the knowledge elements recommended for faculty geriatricians. Clinical training in ambulatory primary care, comprehensive geriatric assessment, inpatient and outpatient consultation, nursing home care, home care, hospice and palliative care, rehabilitation, psychologic, and social issues of aging, medical ethics, acute inpatient care, and the private practice of geriatric medicine, dentistry and psychiatry are provided to all fellows. There are also discipline-specific experiences for medical, psychiatric and dental fellows. Research training is provided through a didactic curriculum and ongoing interaction with a faculty mentor throughout the fellowship. The mentor and fellow discuss preliminary research questions and interests, review relevant literature, and decide upon a project. During the second year, there is protected time to complete the project and prepare for presentation and/or publication. Administrative skills training has 2 components. Fellows take a course in health administration and enroll in the American Medical Directors Association program on medical directorship in long-term care. They also complete a time-limited administrative project with the guidance of a senior faculty mentor.

The goals of the program as a whole are to train qualified physicians and dentists who will: (1) become active faculty members to train primary care physicians, dentists and other health professionals; (2) be highly skilled geriatric clinicians to model the practice of primary care geriatrics; (3) be prepared to conduct research to expand the knowledge base of geriatrics and gerontology, and (4) serve as consultants to develop community geriatric services.

A comprehensive didactic curriculum covering all areas has been developed and implemented. Specific components of the curriculum include the following:

1. Geriatrics and gerontology grand rounds;
2. Geriatrics faculty scholars series;
3. Geriatrics and gerontology journal club;
4. A full-time, 1-month seminar course on ethics for the clinician;
5. A clinical rotation on the Rehabilitation Medicine Service, with daily lecture series;

6. Interdisciplinary team training in geriatrics (ITTG). All fellows participate as full members of interdisciplinary teams during their assignments to geriatric clinical programs. In addition, the fellows receive ITTG formal coursework during the STGEC *Faculty Scholars and Summer Intensive Programs*;
7. Palliative care lecture series;
8. A didactic and applied teaching skills curriculum;
9. Administrative skills are acquired by each fellow in an administrative apprenticeship to a senior faculty member, through formal training in personnel management, budget preparation and program development and evaluation, as well as an administrative project (all under the mentor's guidance).

Clinical Training Occurs in Multiple Sites

Comprehensive geriatric assessment is taught and practiced in multiple sites. The clinical sites were also chosen to provide exposure to a variety of patients with different gender, social, economic and ethnic backgrounds. These include: (a) the Geriatric Evaluation and Management Clinic (GEM) at ALMD of STVHCS; (b) the Geriatric Clinic (GERI) at the Nix Hospital in downtown San Antonio; and (c) University private Geriatric Medicine Practice Clinic.

Experience in diagnosis and management of diseases of the elderly, geriatric syndromes, medication prescribing, and rehabilitation is learned in the following settings: (a) the GEM clinic patient population includes predominantly frail elders with multiple comorbid illnesses and functional impairments; (b) the Extended Care Therapy Center (ECTC) and home care experiences provide fellows with experience in managing patients with severe functional impairments and medical illnesses; and (c) the acute care geriatric medicine rotation provides opportunities to participate in the diagnosis and management of elders with congestive heart failure, pneumonia, sepsis and delirium, and to implement strategies for prevention of cognitive and functional decline, polypharmacy, pressure ulcers and other iatrogenic illnesses.

Longitudinal experiences in primary care are provided for all fellows in several settings. In the outpatient care setting, 2 geriatric outpatient clinics, the GEM at the STVHCS and the GERI at the Nix Hospital in downtown San Antonio (6-month experience), provide longitudinal primary care experience. Each fellow follows a cohort of patients longitudinally in the role of primary care medical or dental provider for 2 years in the GEM. In the home care setting, medical fellows continue to serve as primary care physicians for their own patients when they are referred into home care or hospice. In the nursing home care setting, medical and dental fellows serve as primary care physicians and dentists, respectively, for 2 years for a cohort of patients in the ECTC, a veterans affairs-based academic nursing home. Experience with elderly female nursing home patients is achieved by a longitudinal rotation with community practitioners in their nursing homes.

Regarding preventive care, the principles of primary and preventive care are covered in didactic sessions. The GEM and GERI clinics use, and familiarize fellows with, evidence-based guidelines for preventive care in older patients, as well as the goals for the nation described in Healthy People 2010.[13]

Training in hospice and palliative care is provided by means of: (a) block rotation, where each fellow has a 1- to 2-month full-time rotation on the hospice service, providing care to both inpatient and home hospice patients; and (b) palliative care consultation, where each medical and dental fellow serves as a member of the palliative care consultation team for 1 or 2 months. One program is the 3-year-old coordinated, San Antonio-wide Hospice Program sponsored by UTHSCSA, STVHCS-ALMD, and the Santa Rosa Hospice of South Texas (private, nonprofit). Hospice services are organized by a coordinated, interdisciplinary team to provide in-home, respite, hospital, and nursing home services to terminally ill patients. This program is integrated as a training resource for geriatric fellows.

On interdisciplinary team participation and leadership: (a) formal interdisciplinary team training is provided to all fellows; and (b) all medical and dental fellows are members of the interdisciplinary teams at ALMD and community-based sites.

With regard to additional clinical experiences, first-year fellows also learn through a Geriatric Psychiatry Rotation, and Neurology Clinic Rotation (dentists) in order to integrate subspecialty experience into the fellowship curriculum. In addition, physical medicine and rehabilitation consultants are available weekly in the geriatric clinic for the evaluation of gait disturbances.

The fellows also have a specific research goal: each fellow will develop skills and expertise in designing, writing proposals, directing, and evaluating relevant research in geriatrics or gerontology. Research curriculum consists of formal coursework in the following:

1. Introduction to Clinical Investigation: an intensive 2-week course covering ethical principles for the conduct of research, literature searching and review,

study design, biostatistics, data management and quality control, and scientific writing;
2. Research Methods in Biomedical Gerontology: a seminar series covering current techniques, findings and questions in basic aging research; and
3. Biostatistics and epidemiology courses offered through the University of Texas School of Public Health MPH (Master of Public Health) Program at San Antonio.

Each fellow has a mentored research experience that is a key component of the fellowship program. Each fellow is linked with a "content" and "methodology" mentor. During the first year, fellows select a research area of interest in geriatrics/gerontology that is being studied by a research-based faculty preceptor and assist with that research. An independent research project is completed during the second year. A significant amount of protected time is guaranteed to each fellow in order to allow project completion. By the end of the second year, fellows will have written a fundable proposal. To date, all fellows have met these objectives.

Board Certified Geriatrician

Geriatric medicine has been an added qualification recognized by the American Board of Medical Specialties® (ABMS),[14] a not-for-profit organization comprising 24 medical specialty boards. ABMS is the pre-eminent entity overseeing physician certification in the U.S. Fellows participating in the ABMS-accredited geriatric training programs must complete an internal medicine, family medicine, or psychiatry/neurology residency program. After completion of at least 1 year of the program, candidates can obtain subspecialty certification in geriatric medicine by passing an examination jointly administrated by the American Board of Internal Medicine and the American Board of Family Medicine, or a test provided by the American Board of Psychiatry and Neurology. The American Geriatrics Society reports that the ABMS has voted to make geriatric medicine a subspecialty and has begun the work necessary to achieve this. At this printing, reclassification to subspecialty status could be a year away.

Present and Future Challenges

While there has been tremendous improvement in geriatric medical education in the U.S. over the years, it is still facing many challenges, including a severe shortage of qualified faculty members, lack of financial support, and insufficient educational materials and resources. To overcome these barriers, the UTHSCSA geriatrics faculty, in collaboration with other multidisciplinary faculty members, will be meeting during the next 2 years to coordinate their efforts in applying for a large foundation grant to fund a Center of Excellence in Geriatric Medicine. The foundation grant should enable the UTHSCSA to develop an integrated 4-year geriatric medicine curriculum during the predoctoral years. While the UTHSCSA postgraduate geriatric training program has been recognized as one of the best programs in the nation, we will continue to seek funding for training more fellows in geriatric medicine. In addition, we will foster and facilitate geriatric medical education in other postgraduate disciplines and provide more continuing education. In the past few years, we have received funding to train fellows and residents from our oncology program in a 1-year postgraduate geriatric oncology program. As in predoctoral education, funding and faculty retention are 2 major challenges for postgraduate education. As first steps, we will work with professional organizations such as the Gerontological Society of America and the American Geriatric Society to lobby for more funding from federal and state agencies, apply to private foundations for development of geriatric education, and provide faculty retention incentives.

Conclusion

As the human population advances in age and the demands for comprehensive health care for the elderly increase, the curricula in geriatric medicine need to be implemented immediately in every country with an aging population. Continuing and postgraduate education programs in geriatrics should be developed quickly. Although the geriatric medical education discussed in this report is only limited to medical professionals, geriatric patient care programs should be based upon an interdisciplinary approach with oral health as a part of the total patient management portfolio. Overall, geriatric medical education has been improving in the U.S. in the past 30 years. New efforts and resources are needed to meet future challenges pertaining to the improvement of teaching materials and medical personnel training.

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