

# Undergraduate Medical Education in Geriatrics: Nursing Home Experience

Kurt Fiedler, MD, Arthur Kaufman, MD, Timothy Johnston, Pharm D,  
George Benevidez, BS, Jack Greenberg, BA,  
Elizabeth Szalay, BS, and Michael Clements, BA

Albuquerque, New Mexico

Preclinical medical students undertook an elective course in geriatrics which combined instruction in history taking, physical diagnosis, and problem-oriented assessment of elderly patients in a nursing home. A drug utilization review and specific drug therapy plans were formulated by pharmacy students. The project identified general problems susceptible to institutional as well as individual remedy. The students were led beyond their initial preoccupation with "physical complaints" to interest in pertinent psychological, social, and economic factors. A model of geriatric education for health science students can productively link the health science center and community nursing homes with benefits for the student, the patient, and the nursing home.

The elderly population in the United States is increasing absolutely and relatively. Though they comprise but ten percent of the population, they account for 25 percent of all health expenditures in the United States.<sup>1</sup> Health care for the elderly requires long-term management of chronic, multisystem disease,<sup>2</sup> such disease being strongly influenced by psychological, social, and economic forces. Appropriate care for patients with such complex needs requires a coordinated effort of many health and social service providers.

While at any given time five percent of our nation's elderly are institu-

tionalized in nursing homes, old age homes, or mental hospitals, up to 20 percent will be institutionalized at some time. But nursing homes have come under increasing public<sup>3</sup> and professional<sup>4</sup> scrutiny for deficiencies in the health care they provide their patients. A recent study characterized nursing homes as "a morass of 'copelessness'."<sup>5</sup>

Traditional medical education is lacking in course offerings in geriatrics, and there exists a great bias toward training in acute care, disease-oriented, in-hospital service. In addition, medical students are trained in isolation from other health professionals, hindering development of teamwork skills. There is, thus, an urgent need to develop teaching experiences in geriatrics aimed at medical students, which will succeed in generating understanding about and interest in the complex health problems of this group. Nursing homes provide a confluence of health-care problems and opportunities for geriatric studies.

Noting the medical deficiencies of nursing home care and the urgent need to develop educational experiences in geriatrics, the Department of Family, Community and Emergency Medicine of the University of New Mexico School of Medicine undertook a project of health science student involvement in nursing home geriatric care during 1975 to 1976. The objectives of the clinic were two-fold: first, to determine the educational value to medical and pharmacy students of a longitudinal, elective clinical experience based in a nursing home, and second, to determine the impact of a student-run clinic on health services at the nursing home.

## Method

Administrators at a nursing home in Albuquerque, interested in upgrading health care at their facility, invited health science students from the University of New Mexico to develop a clinic at their facility. The nursing home is privately run and maintains a census of about 110 patients. Over 80 percent are Medicaid supported. Half are Spanish surnamed and five percent are American Indian. Each nursing home patient has a designated private physician whose prior approval is necessary for students to conduct examinations. Almost all the private physicians caring for patients at the home gave blanket approval for such examinations.

Eight preclinical medical students who elected to devote an afternoon a week to this project were first given a brief, intensive course in history taking and physical diagnosis. Some basic reading material in geriatric health and social problems was provided. Skills in problem formulation, charting, and oral case presentation were taught during the actual clinic sessions.

Each week four students were assigned to one patient each by a supervisor at the nursing home. Since no examining facilities existed at the home, students brought their own equipment and examined patients in their rooms. On-site supervision of the medical students was provided by an attending and chief resident from the Department. Students usually completed their history and physical examination within two hours. The medical student and physician supervisor then

From the Department of Family, Community and Emergency Medicine, University of New Mexico, School of Medicine, Albuquerque, New Mexico. Requests for reprints should be addressed to Dr. Arthur Kaufman, Department of Family, Community and Emergency Medicine, University of New Mexico, 1007 Stanford NE, Albuquerque, NM 87131.



discussed the case, summarizing major problems and outlining recommendations. The students then formulated a problem-oriented summary on the chart.

Data sheets were filled out on each patient, recording demographic information, medical diagnosis, problems identified, and recommendations made. These sheets were compiled for research purposes.

The School of Pharmacy participated in the clinic through their Clinical Pharmacy Program. Fourth-year pharmacy students, under the direction of a clinical pharmacist, interviewed patients along with the medical students, reviewed their medication sheets, and took a specific drug history where indicated. For selected patients, a drug therapy plan was prepared.

At the conclusion of each clinic session, all medical and pharmacy students and their preceptors met with the nursing staff of the home in a conference room to discuss each of the four patients examined. After the medical and pharmacy students presented their findings, the nursing home staff offered their perspectives. A general discussion of these and related health and social issues in geriatrics usually followed.

Chart records of the first 40 student-patient encounters were tabulated. Participating health science students and nursing home staff were interviewed as to the value of this clinical experience.

**Table 1. Most Frequent Abnormal Physical Findings Identified by Medical Students in 40 Consecutive Nursing Home Patients**

Physical Abnormalities	Number of Patients
Neurologic (CVA, seizures, dementia, etc)	20
Musculoskeletal (arthritis, etc)	20
Eye (cataract, refractive error, etc)	18
Cardiovascular (hypertension, arrhythmia, CHF, etc)	15
Gastrointestinal (constipation, diarrhea, etc)	11
Mouth (dental caries, need for dentures, etc)	7
Ear (deafness, cerumen impaction, etc)	6
Skin (rash, ulcer, etc)	6

## Results

### The Patients

The average age of the 40 patients seen by the health science students was 77 years (range: 40-97). There were 34 females and six males. Fifteen (38 percent) of the patients had Spanish surnames and 33 (82 percent) were supported by Medicaid.

Medical students identified an average of 3.6 physical and psychological health problems per patient (range: 1-10) after assessing the obtained history and physical examination. The physical problems identified were wide-ranging (Table 1), most patients being found to have multisystem disease.

Psychological and social problems afflicted most of the patients and most frequently expressed themselves as depression. Estrangement from family, demise of spouse and friends, and maladjustment to nursing home food, personnel, or routine were recurrent themes.

Medical students averaged 2.8 recommendations for treatment modification per patient (range: 0-7). While these recommendations were also broad in scope (Table 2), they concentrated more upon tangible, physical needs and procedures such as laboratory tests and medication changes than upon less concrete (though perhaps

**Table 2. Medical Students' Recommendations after Interviewing and Examining 40 Consecutive Nursing Home Patients**

Category of Recommendation	Number of Times Recommended
Medication or diet change	26
Lab, x-ray	19
Instructions to nursing staff (blood pressure check, foot care, observe for shortness of breath, etc)	14
Future plan by students (repeat tonometry, clean ears, perform neurologic work-up, follow-up heart murmur, etc)	9
Obtain appliance (leg brace, hearing aid, glasses, etc)	7
Physical therapy	6
Increase social contact (visiting, radio, occupational therapy, counseling, etc)	6
Refer to specialist	4



more important) suggestions such as the need for increased social contact.

### *The Students*

Students felt challenged by the variety and complexity of health problems in the nursing home geriatric population. At first they were overwhelmed by the somewhat depressing atmosphere of the nursing home and were consumed with details of specific physical abnormalities and unfamiliar drugs. But later, they turned increasingly toward recognition of the psychological, social, and economic problems of their patients.

Students experienced a necessary desensitization to some aspects of the environment: "I lost some of my fears of the old and senile"; "After I forgot the smell of urine I got into doing the exam and thinking of the patient as a person." They acquired an important sensitization as well: "It took awhile to see that their isolation and loneliness was as important as their diseases"; "It was good to think in terms of quality of life... Although these patients had severe medical problems, it was frequently the small things that could change their lives the most — socializing more, getting new glasses, receiving foot care, etc."

Both medical and pharmacy students appreciated each other's contributions and became comfortable in cooperative assessment before the entire group.

Some students expressed surprise at the dedication and skill of the nursing home staff: "I had visions of less-than-optimal care from uninterested and uncaring institutional staff. The nurses I dealt with, however, were quite professional and concerned." In the large group discussions students became conscious of the value of a nurse's insights about a patient after long-term, daily observation, in comparison to a student's or physician's somewhat naive appraisal after a brief encounter.

Finally, students repeatedly expressed their positive feelings that their work was valued, their recommendations often contributing substantially to the health care of their

patients: "I felt as if there was a real need for our services (as opposed to the already over-worked hospital personnel) and felt that I must take care not to overlook anything that might be important to the patient."

Students felt the nursing home experience was lacking in providing long-term follow-up on patients seen. Each week, students interviewed a new patient with little time left to check those seen before. Some students felt a need later on in the year to return to more in-depth readings and discussions about geriatrics. All students lamented the lack of equipment at the nursing home (no pelvic table, no simple laboratory equipment, etc), feeling that this hindered ability to provide a more comprehensive service.

### *The Nursing Home*

An important contribution of the program identified by the nursing home administrators was the weekly provision of in-service education about geriatric health problems to the nursing home staff. Further, since patients selected each week for the students tended to be those presenting special problems for the staff, ensuing case conferences were immediately relevant to staff needs.

The nursing home staff were usually aware of problems identified by the students. Thus, the conferences tended to lend professional support to existing staff hunches. In some cases, student's recommendations were used by the staff to prod a remote private physician into action.

In response to the success of the student program and in anticipation of the coming year, the nursing home administrators have constructed an examining room, built a laboratory area and purchased an examining table with stirrups. The nursing home has recently hired a medical director and requested that he facilitate our program. Impressed with the write-ups and recommendations of the students and grateful for their assistance, the new director has encouraged greater patient care responsibility by the students and agreed to a more in-depth, comprehensive service by them in the future.

### **Discussion**

Preclinical medical students often complain of "boredom" and "irrelevancy," in their medical education. In a variety of ways they are frustrated in their roles as students of basic science while aspiring to be practitioners of medical care.<sup>6</sup>

The nursing home experience provides a setting in which such students can quickly acquire clinical skills, work as team members along with other health science students, and give needed care. At the same time, students gain an appreciation for an important, neglected area of health care — geriatrics. In this educational setting the nursing home gains a valuable service.

By seeking out the elderly beyond the hospital and by involving students in their medical care, we may improve the attitudes of this generation of medical students toward geriatrics. Perhaps, then, medical graduates in the future will come to appreciate Dr. Hodkinson's reflection: "I find it difficult to understand why young graduates don't all rush to become geriatricians if only for reasons of enlightened self-interest."<sup>7</sup>

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