



A MULTIDISCIPLINARY INTERNSHIP EXAMPLE IN GERIATRICS

ABSTRACT

Introduction: Given the rapid growth of the world's aging population, physicians are expected to knowledgeably and competently address geriatric concerns. This study aims to present the structure of and trainee feedback on a multidisciplinary geriatric/gerontology clerkship program initiated by the Faculty of Medicine at Gazi University, Ankara in the academic year 2009–2010.

Materials and Method: The university administration formed a multidisciplinary education council to design geriatric/gerontology training for the period during which no geriatrist was available in the faculty. This council was responsible for conducting training sessions and examinations. A total of 181 students participated, of which 138 (76.2%) completed the feedback form.

Results: The clerkship consisted of three components: theoretical (76%) and practical courses (22%), as well as independent work (2%). The participants spent 60% of their apprenticeship engaging in practical study at nursing homes, and 40% in the psychiatry, neurology, and physical therapy rehabilitation clinics of University Hospital. The purpose of the clerkship and training objectives were detailed in the curriculum, which was included in the clerkship file. The final student grade was calculated by averaging the evaluation scores earned during the training period and the results of written and oral examinations. According to the feedback obtained, 61.6% of the trainees regard the allocated time for training as adequate, and 39.1% strongly believe that the clerkship program met its training objectives.

Conclusion: Geriatric training programs that are structured for a given clinical period, and emphasize practice and real-world situations, more effectively satisfy educational purposes and training objectives.

Key Words: Geriatrics; Clinical Clerkship; Education, Medical, Undergraduate; Interdisciplinary Communication.

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GERİATRİDE MULTİDİSİPLİNER BİR STAJ ÖRNEĞİ

Öz

Giriş: Yaşlanan dünya nüfusu sonucu hekimlerin geriatrik sorunlar açısından bilgi ve beceri düzeylerinin yetkinlik seviyesinde olması beklenmektedir. Bu çalışmanın amacı bir tıp fakültesinde 2009-2010 eğitim döneminde başlanan Geriatri/Gerontoloji stajı yapılmasını ve öğrenci geribildirimlerini sunmaktır.

Gereç ve Yöntem: Fakültede geriatrist olmadığı dönemde bu konuda eğitimin yapılandırılması için fakülte yönetimi tarafından multidisipliner bir eğitim kurulu oluşturuldu. Bu eğitim kurulu stajın yürütülmesinden ve sınavlar yapılmasından sorumluydu. Staj zorunlu olduğu için 181 öğrenci stajı aldı, 138'i (%76,2) geribildirim formunu doldurdu.

Bulgular: Staj süresinin %75'i teorik, %21'i pratik dersler ve %1'i serbest çalışmadan oluşmaktaydı. Pratik derslerin %60'ı huzurevinde uygulanmakta iken %40'ı Gazi Hastanesi Psikiyatri, Nöroloji ve FTR kliniklerinde yapılmaktaydı. Stajın amaç ve öğrenim hedefleri staj dosyasında yer almaktaydı. Staj notunu staj süreci değerlendirmesinden alınan puan ile yazılı ve sözlü sınav puanlarının ortalaması oluşturmaktaydı. Öğrencilerden alınan geribildirimlere göre öğrencilerin %61,6'sı staj için ayrılan sürenin yeterli olduğuna, %39,1'i stajın öğrenim hedeflerine ulaştığına tamamen katıldığını belirtmiştir.

Sonuç: Klinik dönemde yapılandırılacak olan geriatri eğitim programlarının pratik ağırlıklı olması ve topluma dayalı özelliklerinin bulunması eğitim programının amaç ve öğrenim hedeflerini daha çok karşılayacaktır.

Anahtar Sözcükler: Geriatri; Klinik Staj; Mezuniyet Öncesi Tıp Eğitimi; Multidisipliner İletişim.



INTRODUCTION

Today, individuals aged 65 or older make up more than 10%, 5%, and 5% of the populations in industrialized, less developed, and least developed countries, respectively. The global population of people aged 60 or older is estimated to reach 1 billion in 2020; out of this population, 700 million will be citizens of developing countries. Researchers began conducting scientific investigations into old age in the second half of the 20th century, during which geriatric and gerontology fields of study were developed and geriatric clinics were established (1).

In Turkey, the aging population increases on an annual basis. An analysis of the trends in the country shows that within the next 10-20 years, the Turkish population will be classified as an aged society—a situation that will bring forth problems related to elderly health care and chronic diseases (2).

Two important strategies for resolving these problems is raising the awareness of health care providers, particularly physicians, with respect to geriatric problems, and enhancing the knowledge and competency levels of such practitioners.

In England, medical schools at universities have begun exerting considerable and accelerated efforts to develop curricula on the geriatric field (3), within which educators have designed undergraduate geriatric curricula (4). The Yuste Foundation European Academy Workgroup examined the issue of incorporating geriatric training in undergraduate academic programs. The workgroup deems geriatric training compulsory, proposing a curriculum that includes the following courses:

- Foundational Gerontology and the Basis of Aging;
- Demographics and Epidemiology of Aging Societies;
- Rehabilitation;
- Holistic Approach;
- Incapacitation, Handicap, and Disability;
- Multidisciplinary Re-skilling;
- Accommodation and Support;
- Diseases of the Old Age;
- Pathologies that Emerge with Old Age;
- Geriatric Giants (Immobility, Incontinence, Imbalance, Mental Senility);
- Comparison of Disease Indications with Youth;
- Psychological and Psychiatric Syndromes.

Although implementing a complete curriculum by a geriatrist is not a requirement, they are encouraged to include

content, organization, planning, and monitoring in geriatric programs, as well as provide training in and out of hospitals (2,5). Another significant suggestion is that these training programs should be provided in the later stages of medical schools (2,5). Medical educators in the US have developed geriatric curricula since the late 1990s (6). One of the 17 core clinical competencies defined in the core clerkship curriculum on Internal Medicine is a geriatric care program which comprises 11 special training objectives as well as strategies for aim-specific knowledge, skills, and attitude levels (7). Researchers who study the planning of health services for the elderly state that this type of curriculum is a necessity for Turkey, and that primary health care practitioners are obligated to provide effective health care to the aged (8). Given the rapidly changing population demographics in Turkey and around the globe, the inclusion of subjects related to elderly health care in medical education curricula is inevitable.

The present study aims to examine the geriatric/gerontology clerkship program initiated by the Faculty of Medicine at Gazi University, Ankara in the academic year 2009–2010, and to present students' feedbacks on the program.

MATERIALS AND METHOD

The School of Medicine at Gazi University lacked geriatric specialists during the 2009–2010 academic semester. Because of the identified inadequacies in the field of geriatrics within the academic curriculum, the school's Dean's Office formed the Geriatry/Gerontology Council, headed by a chief coordinator and clerkship term coordinator. The council is made up of nine faculty members from the departments of Internal Medicine, Neurology, Orthopedics, Public Health, Psychiatry, Physical Therapy and Rehabilitation, and Medical Education, as well as a student representative. The council accordingly formulated its directives and took charge of implementing the clerkship program during the fifth academic year.

During this year, 181 students were enrolled in the program and because this clerkship was mandatory, all the students participated. However, only 138 (76.2%) provided feedback through the survey form. Feedback was obtained on the last day of clerkship after the written exam. The feedback survey form contains questions concerning the clerkship period, as well as theoretical and practical course assessments and expectations. The participants were asked to respond to the questions on 5-point Likert scales.

No needed any ethical approval for this study. Oral informed consent was obtained from students.



RESULTS

Clerkship Structure

The duration of the clerkship was 5 business days, and each group consisted of 15–18 students. The syllabus of the clerkship is shown in Table 1. The program comprises the following components: 76% theoretical courses, 22% practical courses, and 2% independent work. During the practical courses, the students spent 60% of their time on practical activities in a nursing home, and 40% in the psychiatry, neurology, and physical therapy–rehabilitation clinics of Gazi University

Hospital. In the first phase of the activities at the nursing home, the institutional director, physician, and social service specialist provided information on the organizational structure and services offered in these homes. The trainees were further briefed about important issues in elderly patient consultations and diagnostic examinations. In accordance with the briefing requirements, the students examined nursing home residents' files together with the institutional director, and groups of 2–3 trainees each consulted a facility resident. During these interviews, the students obtained the residents' medical history and records of their social/personal lives.

Table 1— Semester 5 Geriatric/Gerontology Clerkship Program, Gazi University Faculty of Medicine 2010.

Day	Time	Subject
First	8.30-9.20	Physiological Changes in Elderly
	9.30-10.20	Assessment of Aged Patients
	10.30-11.20	Aging Population and Problems
	11.30-12.20	Cerebrovascular Disease in Geriatric Age Groups
	12.20-13.30	LUNCH
	13.30-14.20	Approaching Patients with Dementia
	14.30-16.20	Practice (Neurology)
	16.30-17.20	Independent work
Second	8.30-9.20	Endocrinal Changes in Geriatric Age Groups
	9.30-10.20	Use of Medication in Geriatric
	10.30-11.20	Infections in Geriatric Age Groups
	11.30-12.20	Aging Vertebrae
	12.20-13.30	LUNCH
	13.30-14.20	Balance and falling in Geriatric Age Groups
	14.30-15.20	Immobilization and Physical Activity
	15.20-17.20	Practice(Physical Therapy and Rehabilitation)
Third	8.30-9.20	Independent work
	9.30-10.20	Geriatric Psychiatry
	10.30-12.20	Practice (Psychiatry)
	12.20-13.30	LUNCH
	13.30-14.20	Urinary Incontinence in Geriatric Age Groups
	14.30-15.20	Nutrition for the Elderly
	15.30-16.20	Hypertension in Geriatric Age Groups
	16.30-17.20	Independent work
Fourth	8.30-9.20	Rheumatologic Diseases in Geriatric Age Groups
	9.30-10.20	Protection from Osteoporosis and Exercising
	10.30-11.20	Osteoporosis and its Complications
	11.30-12.20	Vascular Changes in Geriatric Age Groups
	12.20-13.30	LUNCH
	13.30-17.20	Practice (elderly homes)
Fifth		EXAM



The learning objectives of the clerkship for knowledge, skills, and attitudes were;

Knowledge

- Should be able to define geriatrics
- Should be able to list geriatric diseases
- Should be able to define aging
- Should be able to list the functional changes caused by aging in tissues and organs
- Should be able to select treatment methods and medication appropriate for patients, track medicinal interactions according to disease
- Should be able to define the potential complications of geriatric diseases
- Should be able to discern emergency conditions in relation to geriatric diseases
- Should be able to define and resolve psychological problems specific to geriatric diseases
- Should be able to list conditions requiring attention specific to geriatric patients, patient relatives, and patient groups
- Should be able to assess the requirement for collaboration with other health care personnel specializing in geriatric diseases
- Should be able to define institutions engaged in health care for geriatric age groups

Skill

- Should be able to obtain detailed anamnesis from geriatric patients
- Should be able to conduct physical examination of geriatric patients

Attitude

- Should exhibit comprehension of geriatric age populations as significant risk groups

The objectives and curriculum description were included in the clerkship file given to the students on the first day of training.

The final grade of students was calculated by averaging the scores earned during the clerkship period (portfolio) and the scores of the written and oral examinations administered on the last day of training. The students were evaluated on the basis of patient forms, completed during the consultations and examinations conducted in the clinics and nursing homes, as well as on the basis of feedback from faculty members. The feedback forms for the faculty members emphasized the patient examinations conducted by the students, professionalism, and communication skills. The oral exam was based on an elderly health project assigned to students at the commencement of the clerkship.

Feedback

At the end of each training session, feedback was obtained from the students. Figure 1 presents the student assessments of the clerkship duration, with 61.6% of the participants indicating total agreement with the schedule. Figure 2 shows the student assessments of the duration of the theoretical component, with 63% indicating total agreement. Figure 3 illustrates the student evaluation of the practical work. Among the students, 42.5% indicated totally agree, 15.7% declared totally disagree, and 15.7% disagreed.

Among the respondents, 30.4% indicated agreement and 39.1% stated total agreement on whether the clerkship satis-

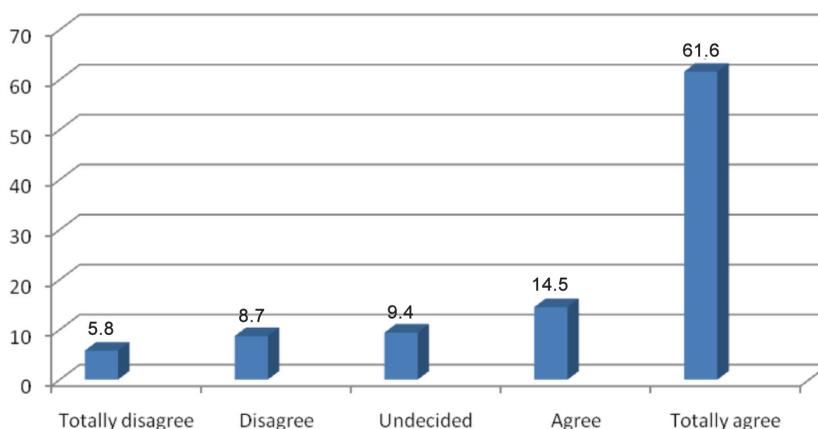


Figure 1— Total duration allocated for clerkship is adequate (%).

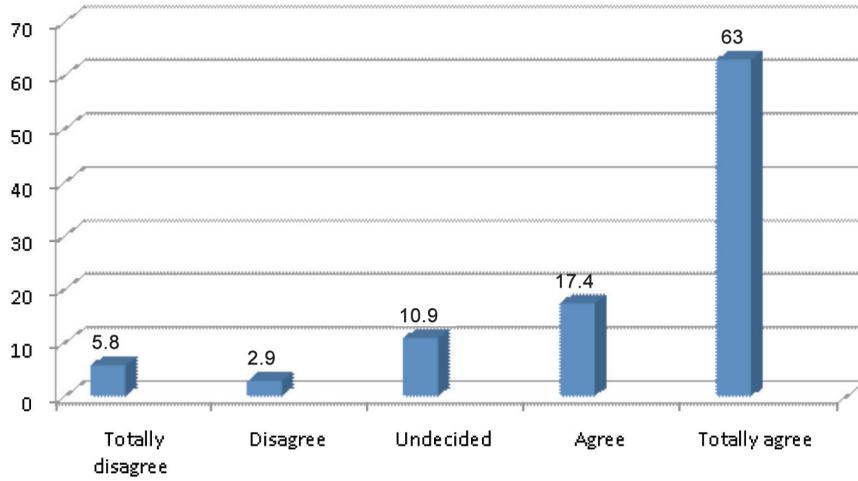


Figure 2— Total duration allocated for the theoretical component is adequate (%).

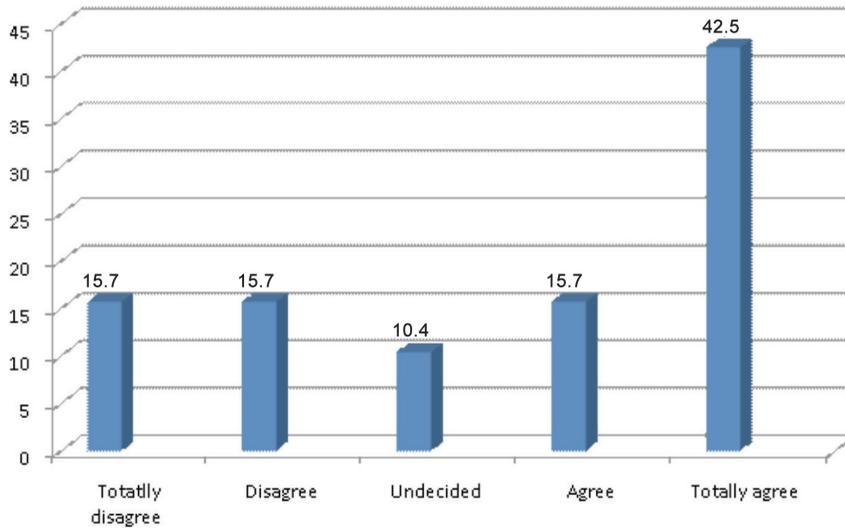


Figure 3— Total duration allocated for the practical lessons is adequate (%).

fied its objectives (Not shown). Figure 4 shows the student opinions with respect to whether the clerkship satisfied participant expectations, with 26.8% indicating agreement and 31.2% declaring total agreement.

A total of 57 students responded to the open-ended section of the feedback form. Of these, 11 highlighted the inadequacy of practical work, 9 discussed the inconsistency between the courses offered by the faculty and the clerkship program, 7 regarded the clerkship as very useful, and the rest provided positive feedback on the project homework, clerkship training objectives, and transportation.

DISCUSSION

The rapid growth of the aging population has driven the inclusion of structured geriatric education in the medical schools. The joint study of the World Health Organization and International Federation of Medical Students' Associations, in which 11 medical divisions from Turkey participated, reveals that geriatric education is mandatory in nearly half the countries investigated (9). The undergraduate component of this program states that geriatric training should be a component of curricula beginning in pre-clinic years and continuing

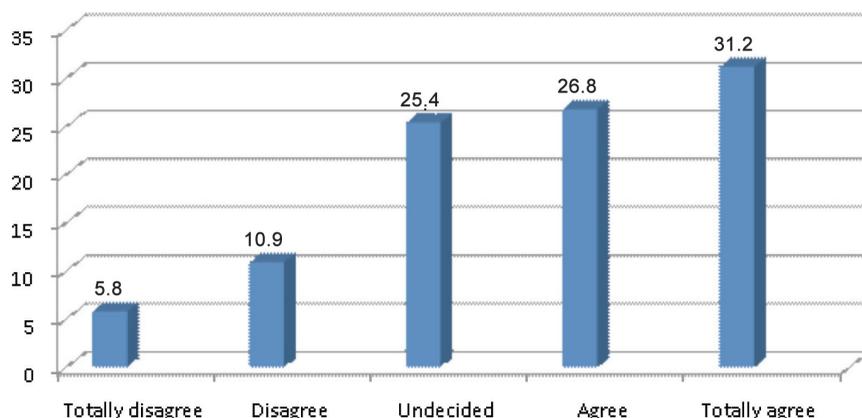


Figure 4— The clerkship satisfied my expectations (%)

on to graduation, a geriatric department should be established in each medical division, and geriatric training should be conducted under the leadership of these departments (5). The Undergraduate National Core Curriculum (NCC) established in Turkey in 2001 covers the issues in elderly-related health problems and compliance with the principles upheld in the practice of geriatric medicine (10). Although Gazi Medical School had a geriatric department at the time of the study, the faculty had no geriatrists, driving the formation of the multidisciplinary council to put together the clerkship program on elderly health care. The medical schools of other Turkish universities have also incorporated different geriatric models into their curricula (2,11). The pre-clinic term training provided by the Çukurova University School of Medicine (2) is a modular structure based on scenarios, and that offered by the Ondokuz Mayıs University Medical School (11) is structured as a four-week block. A comparison of these programs indicates that the multidisciplinary clerkship approach of Gazi University is the first in Turkey. A similar program in the US is structured as a five-day clerkship, after which participants exhibited a statistically meaningful increase in their multidimensional approach to assessing geriatric patients and in their attitudes toward working collaboratively with students from other disciplines (12). The program was structured on a social basis, as evidenced by the training conducted at nursing homes. A study done by the World Health Organization (WHO) reveals that nursing homes are regarded as an important element of the geriatric training environment in Estonia, Lithuania, Finland, Norway, and New Zealand (9). In a study of 145 medical schools in the US, 23% of administra-

tors overseeing geriatric academic programs considered geriatric training as compulsory during clerkship (13). Additionally, 48%, 34%, and 17% of the administrators regarded the integration of geriatric courses in clinic rotations, electively structured geriatric experiences, and student contact with elderly patients without a structured training program, respectively, as critical elements of geriatric training (13).

In the current work, nearly 70% of the students agree that the goals of the clerkship program were satisfied. A study that evaluated the integration of geriatric curricula in pre-clinic and clinic phases shows an increase in students' knowledge and skill levels; these students also agree that the clerkship objectives were accomplished (14). Yet another study indicates that a one-week geriatric program offered during the clinic training phase achieved a measurable increase in the knowledge level of students (12).

On the basis of student feedback in the present research, the most significant limitation of the clerkship is its practical aspect: it is deemed insufficient by one clerk out of three. In some clinical environments in our university hospital, an insufficient number of patients aged 65 or older inhibited full student participation in one-on-one patient examinations; 4 or 5 students usually examine the same patient.

Given the demographic changes in Turkey, a necessary measure is to design and offer geriatric training programs in all universities in connection with the NCC. Medical schools that have no geriatrists can use our geriatric/gerontology clerkship program as reference for initial implementation. Geriatric training programs that emphasize practical aspects during the clinic phase and extensive social components will



develop students into competent physicians for the elderly. The effectiveness of the Gazi University program can be evaluated by monitoring the performance of the first batch of participants who received this training.

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