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Undergraduate Psychiatric Training in Turkey

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Abstract

The current trend in medical education is to abandon the experience-based traditional model and embrace the competency-based education model (CBE). The basic principle behind CBE is standardization. The first step in standardization is to determine what students must know, what they must accomplish, and what attitude they should display, and the establishment of educational goals. One of the goals of the Psychiatric Association of Turkey, Psychiatric Training Section is to standardize psychiatric training in Turkish medical schools. This study aimed to determine the current state of undergraduate psychiatric training in Turkish medical schools.

Method: *Questionnaires were sent to the psychiatry department chairs of 41 medical schools. Data were analyzed using descriptive statistical methods.*

Results: *Of the 41 department chairs that were sent the questionnaire, 29 (70%) completed and returned them, of which 16 (66.7%) reported that they had already defined goals and educational objectives for their undergraduate psychiatric training programs. The Core Education Program, prepared by the Turkish Medicine and Health Education Council, was predominately used at 9 (37.5%) medical schools. Pre-clinical and clinical training schedules varied between medical schools. In all, 3 of the medical schools did not offer internships in psychiatry. The majority of chairs emphasized the importance of mood disorders (49.9%) and anxiety disorders (40%), suggesting that these disorders should be treated by general practitioners. Computer technology was commonly used for lecturing; however, utilization of interactive and skill-based teaching methods was limited. The most commonly used evaluation methods were written examination (87.5%) during preclinical training and oral examination (91.6%) during clinical training.*

Conclusion: *The most important finding of this study was the lack of a standardized curriculum for psychiatric training in Turkey. Standardization of psychiatric training in Turkish medical schools must be developed.*

Key Words: *Undergraduate, Psychiatry, Curriculum, Teaching Methods, Assessment Methods*

INTRODUCTION

Although medical science has improved rapidly during the 20th century, population health indicators did not follow a similar path. Neither the approach to basic health issues nor the content and teaching methods of traditional medical education are sufficient to meet the population's current and future health requirements (Turkish Medical Association, 2008). Medical education has changed drastically during the 20th century. While an organ system-based training approach was adopted by Case Western Reserve University, School of Medicine in the 1950s, a problem-based training approach was adopted by McMaster University in the 1970s (Smith et al., 2007). The global trend in revising medical curriculum led to review the medical education in Turkey as well. The Hacettepe University Faculty of Medicine implemented integrated medical training in 1963. Thirty years later, the Dokuz Eylül University Faculty of Medicine began implementing student-centered training.

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The current trend in medical education is to abandon the experience-based traditional model and embrace the competency-based education model (CBE). The major problem with traditional medical education is its emphasis on what students learn rather than what they accomplish (Thornhill and Tong, 2006). CBE, on the other hand, not only focuses on student knowledge, but places a greater emphasis on what students accomplish. The basic principal behind providing CBE is standardization. The first step in standardization is to determine what students must know, what they must accomplish, and what attitude they should display, and the establishment of goals and educational objectives (Brodkey et al. 2006). At present, the heavily used method of CBE for knowledge and skill improvement is coaching and simulated patients, and the most common method used to assess students' knowledge and skills is the objective structured clinical examination (Thornhill and Tong 2006).

Since the 1970s attempts to develop a common curriculum for both undergraduate and graduate education have been observed worldwide. The national curriculum developed by the Academic Pediatric Association of the United States about 15 years ago is the first example of a national curriculum at the undergraduate level (Olson 2000). In Turkey a common curriculum was published by the Committee for the Development of the National Core Curriculum (CC) in 2001, which aimed to standardize undergraduate medical education at all Turkish medical schools. The National CC was the first attempt to standardize the content and mastery levels of educational programs in order to train physicians that can provide high quality medical care to meet the needs of the Turkish population (Sayek and Durak 2009). The CC is based on symptoms; however, the psychiatric education objectives stated in the CC should be reviewed. Currently, studies on the standardization of undergraduate medical education both at national and international levels are being conducted all around the world (Nasser 1996, WPA-WFME 1999, Piccinelli et al. 2002). While The Royal College of Psychiatrists published a core curriculum consisting of 8 modules covering undergraduate preclinical and clinical study (Nasser 1996), in 1997 The Association of Directors of Medical Student Education in Psychiatry published the educational objectives of psychiatry clerkship in the United States of America (Brodkey et al. 1997). On the other hand, in Italy psychiatry was included in the community-based core curriculum for undergraduate medical school education, which was prepared in 1996 (Picinelli et al. 2002).

A collaborative study by The World Psychiatric Association and The World Federation of Medical Education reported that there are 3 main reasons for the requirement of a separate psychiatry curriculum at the undergraduate level (WPA-WFME 1999). The first is the importance of holistic physical and mental assessment. The second is that some skills, such as administration of a mental status examination and identification of the sources of stress, are acquired only during psychiatric training. Finally, mental disorders often accompany physical disorders, which are usually overlooked by medical specialists.

The Psychiatric Association of Turkey reported it had 1,990 registered members as of 29 October 2009 (Psychiatric Association of Turkey), while the population of Turkey was reported to be 71,517,100 as of 31 December 2008 (Türkiye İstatistik Kurumu), yielding a ratio of 1.6 psychiatrists for every 100,000 people. According to the Mental Health Profile of Turkey (Kılıç et al., 1997), the probability that an adult will experience a mental disorder other than a psychotic disorder during his/her lifetime is 15.4%, while the probability increases to 17.2% for the last 12 months. While 39% of individuals that seek help for a mental problem consult a psychiatric specialist, 33% go to other specialists and 21% go to general practitioners. Among those with a mental disorder, 51% are prescribed medication by specialists other than psychiatrists, and only 18% of those that seek help at a primary medical care center are treated (Kılıç et al., 1997).

Most research conducted in Turkey on the assessment of the knowledge, skills, and attitude of primary medical care physicians and other specialists report unfavorable results (Dilbaz, et al. 1987; Sağduyu and Özmen 1996; Ögel et al. 1998; Sağduyu et al. 2000; Tot et al. 2000; Kuşçu 2001; Özmen et al. 2002).

TABLE 1. General characteristics of the psychiatry departments included in the study.

Medical School (n = 24)	Median	Range
Age	23	3-75
Number of faculty members	5.5	1-17
Number of specialists	0	0-6
Number of residents	9	3-19
Number of psychologists	2	0-8
Duration of psychiatry clerkships (days)	21	13-42
Average number of psychiatry clerkship students	14	4-60
Internship	Exists in 18 faculties	
Average number of interns month–1	6.5	0-50
Number of outpatients day–1	60	30-145
Number of psychiatric beds	17	2-68

It was reported that physicians generally understand when a problem is psychological in nature, but that they are not able to accurately diagnose the disorder. Most physicians report that such cases should be referred to psychiatrists. On the other hand medical treatments provided by the physicians, who reported that they would treat the patients themselves, were inappropriate for the 52% of the cases and insufficient for the 18% of the cases (Dilbaz et al. 1987). One Turkish study reported that physicians were able to diagnose a mental disorder in only 15% of depressive patients and prescribed a psychotropic medication to only 50% of diagnosed patients (Sağduyu et al. 2000). A survey of physicians other than psychiatrists working in Istanbul (n = 60) reported that the physicians relied on previous experiences, rather than on the diagnostic criteria for depression, and that the method they used for prescribing antidepressants was inappropriate (Ögel et al. 1998). A study on physicians in Eskişehir reported that they had a negative attitude towards mental disorders, and that despite having limited knowledge about psychiatric disorders and their pharmacological treatment 60% avoided gaining more knowledge (Yenilmez et al. 2002). According to one survey, 25% of physicians believed that antidepressants were addictive and 33% reported that long-term medication use was problematic (Kuşçu 2001). A study conducted in Izmir that included 70 general practitioners reported that the physicians' success in a simple examination for depression was low and almost 50% didn't feel competent in treating depression (Yemez et al. 1996). It was also observed that physicians are inadequate at diagnosing, starting treatment, and following up psychotic disorders, and were reluctant to do so (Yıldız et al. 2003). It is clear that the accurate diagnosis rate of mental disorders by general practitioners is low, and misinformation and misbeliefs about the use and effects of psychopharmaceuticals is widespread.

These data clearly highlight that current psychiatric training provided by Turkish medical schools is not competency based and that there is an urgent need to improve undergraduate psychiatric training. Assessment of current curriculums, and the experiences, thoughts, and performance of students, obtaining feedback from all instructors, a review of national trends and the literature, and a synthesis all these data is proposed for the development of a new curriculum (Medical School Objectives Writing Group 1999). There is wide variability between the increasing number of medical schools in Turkey, in terms of date of establishment, location, number of students, physical space, equipment, and academic staff. It can be predicted that all these differences have an effect on the content and delivery of education, as well as assessment methods. One of the goals of the Psychiatric Association of Turkey Psychiatric Training Scientific Study Group (PAT-PS-SSG) is to standardize education in institutions that provide undergraduate psychiatric training. The present study aimed to assess the current state of medical schools in Turkey prior to conducting studies in an effort to standardize undergraduate psychiatric training.

METHOD

TABLE 2. Psychiatry lecture hours before graduation.

	Median	Range
Preclinical training - theoretical	21.5	0-80
Preclinical training - practice	0	0-14
Clinical training - theoretical	38.5	12-70
Clinical training - practice	38	0-80
Internship - theoretical	0	0-30
Internship - practice	86	0-160

Sample

This descriptive study included medical schools currently providing education. By the end of 2007 there were 59 medical schools in Turkey, and 10 of these schools are newly founded and haven't accepted registration yet. The questionnaire used in the present study was prepared by the PAT-PS-SSG and sent to the chairs of the psychiatry departments of 41 medical schools in February 2008. Questionnaires were completed by either the chairs or the education coordinators of the psychiatry departments. In all, 29 questionnaires were completed and returned by June 2009, and were subsequently analyzed.

Questionnaire

The questionnaire included 24 items that were prepared by the authors. The first group of items gathered data on the general structure of the department and the methods used in teaching. The next group were designed to determine if the topics of the core curriculum (CC) were covered by an institution's curriculum and the opinion of the institution about CC. In addition to these items, the respondents were asked to select one or more of the CC options ("must be knowledgeable", "diagnoses and refers", "provides emergency treatment", "provides preventive care" and "treats") indicating the mastery level they think a graduate physician must have concerning mental disorders. The teaching and assess-

TABLE 3. Lecture hours scheduled in the current curriculums of the medical schools for the topics of the core curriculum program.

Course title	Number of universities that offered this course (n = 24)	Number of lecture hours (mean±standart deviation)
Psychological basis of behavior	22	6.0 ± 7.5
Theories of development	21	3.8 ± 3.3
Theories of psychotherapy	19	1.7 ± 1.5
Mental state examination	23	3.9 ± 3.7
Biological basis of behavior	21	3.0 ± 2.4
Sexual disorders	21	1.8 ± 1.3
Depressive disorders	23	3.7 ± 2.3
Attention deficit-hyperactivity and consciousness disorders	19	2.1 ± 1.7
Phobic disorders	21	1.5 ± 1.3
Attempted suicide	17	1.1 ± 0.9
Cognitive disorders (dementia, delirium, etc.)	23	2.5 ± 1.8
Mania	22	2.0 ± 1.6
Obsessive-compulsive disorder	22	1.8 ± 1.7
Panic disorder	22	1.6 ± 1.4
Sleep disorders	20	1.7 ± 1.3
Eating disorders	21	1.6 ± 0.9
Psychotic disorders	23	4.5 ± 2.8
Post-traumatic stress disorder	21	1.3 ± 0.8
Psychosomatic disorders	20	1.4 ± 1.1
Bipolar disorder	23	2.4 ± 1.5
Addiction, abstinence, and intoxication (alcohol, substances, and drugs)	23	3.0 ± 1.4
Anxiety	22	2.4 ± 2.2
Personality disorders	23	2.2 ± 1.5
Conversion disorder	20	1.7 ± 1.2
Dissociative disorders	15	0.9 ± 0.8
Consultation-liaison psychiatry	18	1.7 ± 1.3

ment methods used in each department during preclinical training, clinical training, and internship were determined. Reading, simple presentation, clinical visits, small group study, demonstrations, presentations using audiovisual materials, coaching, problem-based learning, conferences, guest specialists, role-playing, mannequins, models, simulators, panels, case discussions, computer-based methods, sharing daily experiences, journal clubs, and team-based learning methods were among the listed learning method options (Sullivan et al. 1999). Written examination, oral examination, applied examination, OSCE (objective structure clinical examination), CORE (clinical objective reasoning examination), structured written examination, 360° evaluation, portfolio, peer evaluation, self-evaluation, and log book methods were the options to be selected for student assessment.

Analysis of data

The data were analyzed using SPSS (Statistical Package for Social Sciences) v.11.0 for Windows. Data are presented as median, range, and percentage, as mean and standard deviation statistics could be misleading due to the small number of institutions analyzed, and due to wide variation between the institutions, median (range) statistics was used in some cases. The t test was used to compare group averages when quantitative variables were available.

FINDINGS

In all, 29 of the 41 medical schools (70%) returned completed questionnaires. Students at 5 of these institutions were either being educated at another medical school or at the preclinical level; thus, psychiatry clerkships were not offered and data from only 24 of the 29 (82%) responding institutions were analyzed.

At 21 of the medical schools (87.5%) psychiatry clerkship is at the 5th year and 22 (91.7%) of the schools gathered structured feedback from the students. At 18 of the medical schools (75%) students were required to perform night duty. At 16 of the medical schools (66.7%)

TABLE 4. The options selected for the topics of the core curriculum program by the education coordinators of the medical schools.

Subject	Selected option	Percentage
Psychiatric history	Must be knowledgeable	55
Mental state examination	Diagnoses and refers	50
Diagnose and categorization	Must be knowledgeable	50
Interview skills	Must be knowledgeable	60
Diagnostic tests	Must be knowledgeable	60
Psychiatric emergencies	Provides emergency treatment	50
Delirium	Provides emergency treatment	35
Dementia and other cognitive disorders	Diagnoses and refers	75
Substance related disorders	Diagnoses and refers	60
Schizophrenia and other psychotic disorders	Diagnoses and refers	60
Mood disorders	Diagnoses and refers	70
Anxiety disorders	Diagnoses and refers	60
Somatoform disorders	Diagnoses and refers	65
Factitious disorders	Not selected	85
Dissociative disorders	Not selected	75
Eating disorders	Diagnoses and refers	65
Sexual function disorders and paraphilias	Diagnoses and refers	60
Sleep disorders	Diagnoses and refers	40
Personality disorders	Must be knowledgeable	45
Child and adolescent psychiatry	Must be knowledgeable	40
Geriatric psychiatry	Must be knowledgeable	35
Forensic psychiatry	Must be knowledgeable	50
Psychopharmacology	Must be knowledgeable	60
Psychotherapies	Must be knowledgeable	70
Consultation-liaison psychiatry	Must be knowledgeable	65

goals and educational objectives had been established, at 5 of the schools (20.8%) goals and educational objectives were being prepared, and 3 (12.5%) of the medical schools don't take this subject into account. While 9 of the faculties (37.5%) made use of CC in their curriculums over 70%, 1 (4.2%) didn't use it at all. Utilization rate of CC, in the curriculums of the 4 schools (16.7%) was below 30%. At 4 of the schools (16.7%), it was between 30% and 50% , and at the remaining 6 (25%), it was between 50% and 70%.

CC categorizes the mastery level of a physician as "knowledgeable", "diagnoses and refers", "provides emergency treatment", "provides preventive medicine", and "treats". Table 4 lists the CC topic options most commonly selected by the education coordinators. Two disorders physicians are expected to treat are mood disorders and anxiety disorders. While 50% of the institutions reported that general practitioners should treat mood disorders (n = 12), 41.6% (n = 10) reported that they should treat anxiety disorders. The 3 most commonly selected topics for which preventive care should be provided were anxiety disorders 33% (n = 8), mood disorders 29.1% (n = 7), and schizophrenia and other psychotic disorders 16.6% (n = 4).

The top 5 teaching methods used at the faculties were clinical visits (83.3%, n = 20), presentations with audiovisual instruments (83.3%, n = 20), journal clubs (75%, n = 18), sharing daily experiences (66.6%, n=16), and case discussions (62.5, n=15). The institutions reported that the least used teaching methods were simulation (29.1%, n = 7), guest specialists (41.6%, n = 10), reading (37.5%, n = 9), role-playing (33.3%, n = 8), and coaching (45.8%, n = 11). The assessment methods used most often were written examination during preclinical training (87.5%, n = 21) and oral examination during clinic training (91.6%, n = 22). OSCE was used at only 4 of the medical schools (16.6%); 2 used it during preclinical training and the other 2 used it during clinical training. Regarding the correlation between the characteristics of the medical faculties and the implementation of modern methods, such as log books and OSCE, the only significant correlation observed was that the number of instructors at the institutions that used log books (10.11 ± 6.03) was significantly higher (P =

0.039) than at the institutions where log books (5.07 ± 2.54) were not used. No other correlations were observed between the variables, such as age of institution, number of instructors, and utilization of log books and OSCE methods.

DISCUSSION

To the best of our knowledge the present study is the first to determine the current status of undergraduate psychiatric education in Turkey. Our primary finding is that standardization has not been accomplished in any area of the curriculum. The 3 factors that determine a curriculum are goals/educational objectives, teaching methods, and assessment methods (Kern et al. 1998). Although CC was published in 2001, only 33% of the medical schools in the present study utilized over 70% of the curriculum. The amount of time scheduled for psychiatry during preclinical and clinical training varied by institution. No psychiatry clerkship existed during the internship at 3 of the schools, despite the fact that the common curriculum program published by WPA and WFME (1999) stated that 8 weeks should be scheduled for psychiatric clinical training and that this period should never be less than 4 weeks. Another important finding is that many of the medical faculties did not offer theoretical courses during the internship period. A study conducted in Australia and New Zealand reported that on average 353 h (about 9 weeks) are scheduled for psychiatric training during the clinical training period (O'Connor et al., 1999).

More than 50% of the participant education coordinators and chairs proposed that graduate physicians should diagnose and refer patients with dementia and other cognitive disorders, mood disorders, somatoform disorders, eating disorders, anxiety disorders, sexual function disorders and paraphilias, substance-related disorders, and schizophrenia and other psychotic disorders. They were also reluctant to have patients with mental disorders treated by general practitioners. Though mood disorders and anxiety disorders were the disorders graduate physicians were most frequently expected to treat, this expectation was reported by less than 50% of the participants. According to general practitioners that participated in a study in Eskisehir, treatment of depression (78.2%), anxiety disorders (72.7%), and sleep disorders (60%) were the most demanded training topics (Yenilmez et al. 2002). In 2009 the World Mental Health Federation (WMHF) defined the main topic of World Mental Health Day as the development of mental health services, extending the scope of mental health services in primary medical treatment settings, and increasing the availability of psychiatric treatment. As such, one of the major goals of any new curriculum should be enhancing the skills and knowledge possessed by primary medical service providers concerning the most common mental disorders.

Another interesting issue concerning curriculums in our study, is the incompatibility of the time scheduled for a certain topic and the objective mastery level. For example, although graduate physicians are expected to only diagnose and refer psychotic disorders the median number of lecture hours scheduled for psychotic disorders is 4.5 ± 2.8. On the other hand, graduate physicians are expected to both diagnose and treat depressive disorders and the median number of lecture hours scheduled for depressive disorders is 3.7 ± 2.32. When the frequency of these disorders is considered the requirement of a more realistic curriculum becomes clear.

Regarding teaching methods, although computers were used for course presentations, modern educational methods (e.g. "simulation" or "coaching", fundamentals of CBE) were rarely used at the medical schools included in the present study. Interactive teaching methods and skill training methods, on the other hand, have very limited utilization. According to the findings of a study conducted in Australia in 1999, 70% of training is spent in clinical activities, 19% is spent in small group activities, and 11% is spent in presentations during clinical training. In Japan, psychiatry clerkship is either on the 4^{th} or the 5^{th} years, and during the clerkship only 2.3% of the time is spent in theoretical presentations (Yamauchi 1998).

Although OSCE is the most widely known modern assessment method, only 20% of the medical schools in the present study use OSCE. During preclinical training written examination and during clinical training oral examination were the most common forms of assessment. In the common curriculum program published by WPA and WFME in 1999, it is proposed that assessment of skills and problem-solving capabilities, patient management abilities, and case presentations should be used together with written examination (requiring short answers) and multiple choice examination.

The challenges intrinsic to the study of education are valid for this study as well. Visits to the institutions, which are regarded as the golden standard in education research, were not performed in the present study. Instead, data were gathered from questionnaires completed by education coordinators and department chairs. As it can be assumed that many of the respondents had not participated in struc-

tured training in medical education, educational terms (e.g. simulation, coaching, etc.) used in the questionnaires, though simplified might not have been fully understood.

In general, the results of the present study indicate that standardized undergraduate psychiatric training does not yet exist in Turkey. Traditional teaching and assessment methods were primarily used, whereas contemporary training and assessment methods were not employed. Establishment of a common undergraduate psychiatric education curriculum and modernization of teaching and assessment methods is required. The first step in achieving these goals is the identification of goals, educational objectives, and standards of psychiatric education, especially during clinical training.

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