



Nursing doctoral education in Turkey

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Summary Quality health care is an issue of concern worldwide, and nursing can and must play a major and global role in transforming the healthcare environment. Doctorally prepared nurses are very much needed in the discipline to further develop and expand the science, as well as to prepare its future educators, scholars, leaders, and policy makers.

In 1968, the Master of Science in Nursing Program was initiated in Turkey, followed by the Nursing Doctoral Education Program in 1972. Six University Schools of Nursing provide nursing doctoral education. By the graduating year of 2001, 154 students had graduated with the Doctor of Philosophy in Nursing (Ph.D.), and 206 students were enrolled in related courses.

Many countries in the world are systematically building various collaborative models in their nursing doctoral education programs. Turkey would like to play an active role in creating collaborative nursing doctoral education programs with other countries.

This paper centres on the structure and model of doctoral education for nurses in Turkey. It touches on doctoral programs around the world; describes in detail nursing doctoral education in Turkey, including its program structure, admission process, course units, assessment strategies and dissertation procedure; and discusses efforts to promote Turkey as a potential partner in international initiatives to improve nursing doctoral education.

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Introduction

Doctoral education in nursing is needed for the development of nursing science; it prepares students to advance the discipline of nursing science through research and theory development, to contribute to the body of nursing knowledge, and to provide leadership to the profession. In 2001, 183

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nursing schools were offering doctoral-level education for nurses. Sixty-five of these schools were in Europe while 58 were in America, 31 in Asia, 18 in Australia, and 11 in Africa (INDEN, 2001). There are currently 232 nursing doctoral programs offered in 30 countries. In addition, three other countries (Argentina, Chile, and Peru) plan to offer such degrees in the near future (Ketefian, 2002).

In view of the trend toward internationalisation in many fields including education, and recognizing the need for an organisation to promote and advocate high quality doctoral education and nursing research, a professional society was established through the efforts of a core group of international colleagues. The International Network for Doctoral Education in Nursing (INDEN) was thus formed officially in the year 2000 with the aim of promoting and advancing high quality doctoral education in nursing through international collaboration (INDEN, 2001). The objective of this paper is to offer a view of nursing doctoral education in Turkey in an effort to help INDEN meet its goals.

Global view of nursing doctoral education

Ketefian and Redman (2001) identify two prevalent patterns in doctoral education programs: the "European model" and the "North American model." The European model consists of a series of individually supervised research projects. In contrast, students in the North American model must take a series of courses in which they conduct research under the supervision of faculty members. Further to the courses, students take an examination, and then undertake the dissertation, also under the supervision of a committee of faculty members. A review of the doctoral education in four countries in the Americas suggests that they are designed on the North American model, which can now be called the "Pan-American Model." This model is seen in Brazil, Canada, the United States and Venezuela, as well as in Korea, the Philippines, Taiwan, Thailand and Turkey. All have country-specific variations in their programs (Ketefian et al., 2001; Ketefian, 2002).

The European model is valid in European countries, northern and southern Africa (Egypt, South Africa, Namibia), Japan, Australia and New Zealand. The types of degrees, the organisational structures under which these degrees are offered and the study patterns vary a great deal. Some degrees are very new, while others have existed for many years (Ketefian, 2002). The degrees offered

are: Ph.D. Doctor of Philosophy, D.N. Doctor of Nursing, N.D. Nursing Doctor, D.N.Sc. Doctor of Nursing Science, D.N.S. Doctor of Nursing Science, D.S.N. Doctor of Science in Nursing (Malasanos, 2002; Lash, 2002).

The introduction of professionally taught doctoral education for nurses is the subject of much discussion in Europe. While doctoral education is mostly associated with Ph.D. study in Europe, the traditional Ph.D. does not focus on linking research, theory and practice. Programs being offered in nursing, however, resemble the Doctor in Nursing Science (D.N.Sc.) degrees prevalent in the United States of America. The D.N.Sc. in the United Kingdom (UK), for example, centres on patient care and aims to link theory, research and practice as well as improve clinical expertise. Students applying for the D.N.Sc. must therefore have access to patient care settings (McKenna and Cutcliffe, 2001).

As suggested by Lash (1987), North American nurses see little difference between research (Ph.D.) and professional (D.N.Sc) doctorates as both programs include theory, research, and integrative science components. The two degrees are equally demanding and systematically organised, and both focus on research methodology, knowledge generation and primary research presented through dissertations (Lash, 1987; McKenna and Cutcliffe, 2001). The main differences between the two programs are that while D.N.Sc. students are expected to learn many aspects of nursing and to become skilled in several research methods, Ph.D. students may limit themselves to the method used in their project, and their final dissertation may be unrelated to nursing practices or patient care (McKenna and Cutcliffe, 2001).

The methods used to teach doctoral studies in nursing vary substantially. Each country, and indeed, each program, develops its own approach and its own curriculum to meet the needs of its society. The curriculum conforms to the state of development of nursing science in the country and incorporates the traditions of the institution in which it is situated (Ketefian, 2002).

Nursing in Turkey – background

Nursing was first initiated in Turkey when Florence Nightingale cared for English and Turkish soldiers during the Crimean war in 1853 (under the Ottoman Empire). In 1912, the Kizilay Committee established a six-month nursing course that captured the attention of the well-educated people of Istanbul. With the Balkan War (1912), Turkish

women started working in hospitals. This is when professional nursing care was first introduced in Turkey.

In 1920, the Americans opened Admiral Bristol Özel Sağlık Meslek Lisesi, which offered a two and a half year nursing course to students with high school diplomas. In 1946, the Ministry of Health and Social Welfare founded the Nursing-Laboratory Schools, which offered a three-year program to high school graduates. In 1958, the program, which had adopted a more hands-on approach, was extended to four years and was offered by vocational high schools as well. From 1989 to 1995, the Ministry of Health and Social Welfare increased the number of vocational health schools from 75 to 326 (Velioglu, 1985; Kum, 1987; Veziroglu et al., 1992; Erdil, 2000; THD Samsun, 2001).

Nursing doctoral education in Turkey

Background

The first University School of Nursing opened in 1955 at Ege University (University of Ege School of Nursing, 2001). From 1963 until 1973, Ege University provided a doctoral degree for nurses in the Medical Sciences Department within the Faculty of Medicine. During this period, 15 nurses graduated with a Doctorate in Medical Sciences. The Faculty of Medicine has continued to offer this degree ever since (Kum, 1985; Akgönül and Conk, 1986). In 1968, the University of Hacettepe initiated the Master of Science in Nursing Program and in 1972, the Doctorate in Nursing Program (Platin et al., 1985; Lash, 1993; Erdil, 2000; Erdil and Bayraktar, 2001; University of Hacettepe School of Nursing, 2001).

In 1986, Turkey was one of only five European countries providing a basic university level nursing education (the other countries were England, Belgium, Iceland and Greece) (Kum, 1992). By 1992, 292 nurses had obtained a Master of Science in Nursing in Turkey, while 120 nurses had obtained a Ph.D. in nursing (Kum, 1992). As of 1999, nursing education was being offered at nine University Schools of Nursing and 81 Health Higher Schools based on a four-year university (licensed education) curriculum. By 2001, 154 nurses had graduated with a doctorate degree since the program had first started being offered, and 206 nurses were enrolled in the program (September 2001 numbers given by schools).

However, there has always been a shortage of qualified instructors with Doctoral degrees in nursing schools. Schools of nursing that have recently opened are facing a major shortage of

qualified personnel and are struggling to meet the required academic standards. In the year 2001, the Turkish Council of Higher Education was forced to set quotas: 151 applicants for the Master of Science degree and 91 applicants for the doctorate degree in Nursing (Ülker et al., 2001). By 2001, only six of the nine University Schools of Nursing were offering nursing doctoral education. Four more schools of nursing are expected to open in the near future (see Table 1 for details on the University Schools of Nursing that offer doctoral education).

Structure

All graduate levels of education in the country are controlled by the Turkish Council of Higher Education (Yüksek Öğretim Kurumu (YÖK)). The Council sets the standards for all universities applying for a new Higher Degree (Master and Doctorate) program and requires new institutions to meet their standards. Since 1982, many university institutions have created doctoral programs and have offered graduate level education. These faculties or institutions are divided into three categories: Health Sciences, Social Sciences, and Scientific Work. In Nursing, graduate education, which started later than in the other science disciplines, is provided by the University Schools of Nursing in conjunction with the Health Sciences University Institutions. From 1983 to 2000, 217,545 students registered for a Doctoral education with the Turkish Council of Higher Education. The latest figures reported by the Council show registration for a Doctoral education in nursing to be 0.16% (Yüksek Öğretim Kurumu, 2001).

The various types of doctoral education found in nursing around the world are not implemented in Turkey as they are in Europe and in America. In Turkey, the doctoral education in nursing is carried out with the Doctor of Philosophy in Nursing (Ph.D.), whose program is based on what Ketefian and Redman called the Pan-American model and is similar to the D.N.Sc. program in that both programs are based on patient care. The most common topics found in nursing dissertations in Turkey are clinical applications of nursing to the country's healthcare system.

Nursing doctoral education began as a single program in nursing. Today in Turkey, it is divided into eight programs: Fundamentals of Nursing, Medical Nursing, Surgical Nursing, Women's Health and Obstetrics, Children's Health and Diseases, Mental Health and Psychiatry, Public Health, and Education in Nursing (Erdil and Bayraktar, 2001; University of Ataturk School of Nursing, 2001;

Table 1 Nursing doctoral education schools and students in Turkey (September 2001 Numbers)

Name of University, City, University Web site	Doctoral education started	Doctorates awarded since program began	Continuing doctoral students
University of Hacettepe School of Nursing, Ankara, http://www.hemsirelik.hacettepe.edu.tr/	1972	53	40
University of Ege School of Nursing, Izmir, http://bornova.ege.edu.tr/~nursing/	1973	50	49
University of Istanbul Florence Nightingale School of Nursing, Istanbul, http://www.istanbul.edu.tr/yuksekokullar/florence/florence.htm	1987	34	56
University of Gülhane Military Medical Academy School of Nursing, Ankara, http://www.gata.edu.tr/hyo/index.htm	1988	3	16
University of Ataturk School of Nursing, Erzurum, http://www.atauni.edu.tr/yokullar/hemsirelik/hemsirelik.htm	1990	13	17
University of Marmara School of Nursing, Istanbul, http://www.marmara.edu.tr/hyo/index.htm	1994	1	28
Total		154	206

University of Ege School of Nursing, 2001; University of Hacettepe School of Nursing, 2001; University of Istanbul Florence Nightingale School of Nursing, 2001; University of Gülhane Military Medical Academy School of Nursing, 2001; University of Marmara School of Nursing, 2001; Platin, 2002).

Admission

Students who have taken a placement test and a foreign language test can be admitted to a doctorate program, which begins in the winter or spring term (with approval by the senate). Students must also obtain the necessary qualifications that are required by the faculty, the Schools of higher education or the Institution Committee. Requirements for application, including deadlines and necessary documents are posted at the university and in major newspapers (Yuksekk Ogretim Kurumu, 2001).

Each university determines its own admission criteria. All applicants, however, are reviewed according to the following criteria: Graduate Record Examination scores, Grade Point Average (GPA) achieved in undergraduate and Master's programs, letters of recommendation and personal statements. Some schools consider prior nursing and professional experience a pre-requisite, some do not (Platin, 2002).

To be eligible, candidates must have a Master's degree. Foreign language tests are also a pre-requisite. The passing grade is 75%. The admission examination consists of a written, an oral, and a practical section. The exam lasts 90 min, and grading is based on 100 points. Candidates' success levels are calculated as the sum of 50% of their foreign language tests and 50% of the grade achieved in the examination. The passing grade is 65.

Units

The passing grade at the doctorate level is 75%. Forty percent of the grade is obtained from mid-terms and 60% from the final exam.

The program includes seven basic course units, as well as proficiency exams, a seminar unit, a thesis proposal, and a dissertation. The total number of credits should be no less than 21. Fourteen hours of theory or 28 h of clinical experience equate to one credit per term. The doctorate program consists of compulsory and optional credits. Twenty-one compulsory credits, which vary from one university to another, are required. Most units are worth two credits but some compulsory units are worth six credits.

The compulsory curriculum offered in universities is generally the same. It includes major nursing topics (six credits), research and theory (two credits),

advanced research methods and theory formation (two credits), science of philosophy (two credits) and the study of a selected topic in this field.

By the end of the fourth term, students must successfully complete a minimum of 21 credits required by their program; otherwise, they are withdrawn from the program.

Proficiency examination

The purpose of a proficiency exam is to evaluate whether students have achieved the minimum required academic knowledge of fundamental issues addressed in the doctorate program. These exams, which are based on taught courses and any related nursing topic, are held twice a year and must be taken within the first three months after students have completed all units. The doctorate proficiency exam is divided into two parts: a written exam and an oral exam. The student is evaluated by a panel formed for the exam by the Doctorate Proficiency Committee. The panel must agree unanimously if the student is to pass. Three days after the proficiency exam, the results are given by the head of the institution to the concerned department.

Dissertation

After completing the proficiency exam, the student selects a dissertation topic and must submit the proposal within one month to the department committee. A Dissertation Evaluation Committee evaluates the dissertation, and once it has been approved, the information is sent to the Health Sciences Institute. Thereafter, approval must be obtained from the Institution Management Committee. The Dissertation Evaluation Committee consists of three active members: one member from a related department, one from another department, and one who can act as a consultant. A consultant Professor may have up to six students and a consultant Associate Professor may have up to four students. A doctoral student generally has one supervisor but in some universities, may have two: one who is familiar with the topic and another who is familiar with the research methodology.

Within six months of passing the Doctorate Proficiency exam, students must present their Dissertation proposal (in which they state purpose, method and working plan) in front of the Dissertation Evaluation Committee. The student must submit the written report to the committee at least 15 days prior to the verbal evaluation.

Twice a year, once between January and June and once between July and December, the Dissertation Evaluation Committee meets and follows up on the progress of the student's work. A month prior to this meeting, the student must present a written report to the committee. In this report, a summary of the work done thus far and a working plan schedule for the following term is required. The student's progress is then evaluated as "successful" or "unsuccessful" by the committee. A week after the meeting with the head of the department, a report is issued to the institution by the Dissertation Evaluation Committee.

The student must then hand in a written report in accordance with the University Senate's stated requirements and verbally defend the thesis in front of the appointed panel. This panel consists of five members, three of whom are part of the Dissertation Evaluation Committee and act as tutors to the student, one who is from the student's school of nursing, and one from a different higher degree institution. The panel members meet and present their personal reports within one month of having received the thesis for evaluation and allow the student to proceed to the exam.

"The Dissertation Examination" consists of a presentation of the Dissertation subject and an oral exam. The examination lasts about 60–120 min. Once the thesis examination is finished, the panel unanimously determines whether it is "accepted" or if it should be "corrected." Three days after the examination, a decision is forwarded to the relevant department.

Doctoral students must submit three copies of their doctoral Dissertations, which are then evaluated by the relevant institutions within a month. Once the requirements have been met, the thesis examination successfully completed, and the Dissertation adequately defended, the student is awarded a doctorate. The name of the approved program in the main department of the relevant institution will appear on the Doctor of Philosophy in Nursing (Ph.D.) (Yuksekoğretim Kurumu, 2001; University of Ege Health Sciences Institute, 2001; University of Istanbul Health Sciences Institute, 2001).

Promoting doctoral education and international collaboration

Many countries in the world, especially in Asia and Africa, are systematically building various collaborative models in their doctoral programs (Ketefian

et al., 2001). Turkey would like to play an active role in creating collaborative nursing doctoral programs with other countries. Some possibilities worth exploring are long distance learning, special summer programs and part-time education for nurses at the doctoral level. These types of programs could help encourage clinical nurses to pursue doctoral studies. Because they are currently required to study in the schools, most nurses choose to work in a clinic and not pursue their education. The few nurses who do enter a doctorate program in nursing tend to work as professors in Nursing Schools.

Over the past years, there has been an increased interest in nursing research in Turkey. In an effort to promote their studies internationally, doctorally educated nurses have organised a variety of nursing conferences, such as the International Turkish Nursing Conference, the International Turkish Nursing Administration Conference, the International Turkish Surgical Nurses' Conference, etc. When the conferences first began, they were attended mostly by lecturers from nursing schools. Today, more and more clinical nurses are attending them as well.

From 26–28 June 2002, the University of Dokuz Eylül School of Nursing in Izmir in collaboration with INDEN held a conference entitled "Doctoral Education in Nursing in the World and in Turkey." A workshop on how to improve nursing doctoral education was offered during the conference. Some of the proposals suggested during the workshop were as follows:

- Build a network concerned with graduate education in nursing throughout the country
- Co-operate with institutions and learn about international nursing graduate programs
- Provide assistance to nurses who are actively working in a clinic while following a doctoral education (University of Dokuz Eylül School of Nursing, 2002).

Further to this conference, the number of Turkish schools of nursing listed on INDEN's Web site has increased to six. The next international Turkish nursing conference will be held in September 2005 in Izmir at the University of Ege School of Nursing.

Conclusion

Every country that initiates a doctoral education is influenced by the developments in doctoral

study elsewhere in the world. Yet each country develops its own educational program in a manner that best fits its unique history and traditions, its scientific level, the welfare of its citizens, and the country's needs in terms of manpower in health-care (Ketefian et al., 2001). In Turkey, the doctoral education in nursing is carried out with a Doctor of Philosophy in Nursing (Ph.D.). The program is similar to the D.N.Sc. program in that it is based on what Ketefian and Redman (2001) called the "Pan-American Model" and focuses primarily on patient care. Turkey wishes to play an active role in promoting and improving nursing doctoral education. Several conferences have been held in the country, including the June 2002 "Doctoral Education in Nursing in the World and in Turkey" conference where recommendations were made to help promote nursing doctoral education. The next international Turkish nursing conference will be held in September 2005 in Izmir at the University of Ege School of Nursing.

References

- Akgonul, G., Conk, Z., 1986. Ege Üniversitesi Hemsirelik Yüksek Okulunda Yüksek Lisans ve Doktora Eğitiminin Gelişimi ve Yapılan Araştırmaların İncelenmesi. 1. Ulusal Hemsirelik Eğitim Sempozyumu. Hilal Matbaacılık A.Ş.. İstanbul, pp. 145–152.
- Erdil, F., (2000). Cumhuriyet Döneminde Hemsirelik, Retrieved September, 1, 2003, from www.un.org.tr/who/nurseturk/hemsireegitim.HTM.
- Erdil, F., Bayraktar, N., 2001. Hacettepe Üniversitesinde Hemsirelikte Lisans Üstü Eğitimin Gelişimi. In: 1st International and 5th National Nursing Education Congress Book, pp. 199–202.
- INDEN (2001). International Network for Doctoral Education in Nursing. Retrieved May, 30, 2001 from www.umich.edu/~inden/.
- Ketefian, S., 2002. Overview of doctoral programs: International perspectives. In: Doctoral Education in Nursing in the World and in Turkey, 26–28 June 2002, The summer conference, University of Dokuz Eylül School of Nursing in Izmir.
- Ketefian, S., Redman, R.W., 2001. Global perspectives on graduate nursing education: Opportunities and challenges. In: Chaska, N. (Ed.), The Nursing Profession: Tomorrow and Beyond. Sage Publications, Thousand Oaks, CA, pp. 219–231.
- Ketefian, S., Neves, E., Gutierrez, M., 2001. Nursing doctoral education in the Americas. Online Journal of Issues in Nursing 5 (2), Manuscript 8. Retrieved June, 20, 2001 from www.nursingworld.org/ojin/topic12/tpc12_8.htm.
- Kum, E., 1985. Hemsirelikte Akademik Çalışma. Temel ve Mezuniyet Sonrası Eğitim. 1. Ulusal Hemsirelik Kongresi Bildirileri. E. Ü. Basımevi. Izmir, pp. 1–8.
- Kum, E., 1987. Florence Nightingale Müzesi Brosuru. Türk Hemsireler Derneği, Ankara.
- Kum, E., 1992. Türkiye'de İlk Hemsire Okulu Açıldıgından Günümüze Hemsirelik Eğitiminde Kurumlaşma. 3. Ulusal Hemsirelik Kongresi Kitabı. C. Ü. Hemsirelik Yüksek Okulu. Esnaf Ofset & Bilim Grafik. Sivas, pp. 124–130.

- Lash, A.A., 1987. Rival conceptions in doctoral education in nursing and their outcomes: An update. *Journal of Nursing Education* 26, 221–266.
- Lash, A.A., 1993. Hemsirelikte Üniversite Eğitimi. 3. Ulusal Hemsirelik Eğitimi Sempozyumu. I. Ü.F.N.H.Y.O.. I. Ü. Basimevi ve Film Merkezi. İstanbul, 1997, pp. 5–10.
- Lash, A.A., 2002. Hemsirelikte Doktora Türleri ve Farklılıkları, Güncel Programlar. In: *Doctoral Education in Nursing in the World and in Turkey*, 26–28 June 2002, The Summer Conference, The University of Dokuz Eylül School of Nursing in İzmir.
- Malasanos, L., 2002. History and current format doctoral education. In: *Doctoral Education in Nursing in the World and in Turkey*, 26–28 June 2002, The Summer Conference, The University of Dokuz Eylül School of Nursing in İzmir.
- McKenna, H., Cutcliffe, J., 2001. Nursing doctoral education in the United Kingdom and Ireland. *Online Journal of Issues in Nursing* 5 (2), Manuscript 9. Retrieved June, 20, 2001, from www.nursingworld.org/ojin/topic12/tpc12_9.htm.
- Platin, N., 2002. Nursing doctoral education. In: *Doctoral Education in Nursing in the World and in Turkey*, 26–28 June 2002, The Summer Conference, The University of Dokuz Eylül School of Nursing İzmir.
- Platin, N., Baser, G., Algier, L., 1985. Hemsirelikte Akademik Çalışma. Temel ve Mezuniyet Sonrası Eğitim. 1. Ulusal Hemsirelik Kongresi Bildirileri. E. Ü. Basimevi. İzmir, pp. 356–360.
- THD Samsun (2001). Türk Hemsireler Derneği (THD) Samsun Subesi Web sayfası (Turkish Nurses Association Samsun Web pages). Retrieved June, 10, 2001, from <http://www.thd-samsun.sphosting.com/new2.html>.
- Ülker, S., Buldukoglu, K., Aksayan, S., Atalay, M., Kocaman, G., Oktay, S., Pektekin, C., Türkiye’de Hemsirelik :Temel Mesleki Eğitim ile İnsangücü’ne İlişkin Sorunlar Ve Çözüm Önerileri. Yükseköğretim Kurulu Başkanlığı. 24 Mayıs 2001, Ankara, Retrieved June, 30, 2001 from www.yok.gov.tr/egitim/raporlar/hemsirelik/hemsire.pdf.
- University of Ataturk School of Nursing, (2001). Retrieved August, 3, 2001 from <http://www.atauni.edu.tr/yokullar/hemsirelik/hemsirelik.htm>.
- University of Dokuz Eylül School of Nursing, (2002). Retrieved August, 25, 2002 from <http://www.deu.edu.tr/deu/icerik/Display.jsp?KOD=92>.
- University of Ege Health Sciences Institute, (2001). Retrieved July, 3, 2001 from <http://bornova.ege.edu.tr/%7Esagbilen/>.
- University of Ege School of Nursing, (2001). Retrieved June, 30, 2001 from <http://bornova.ege.edu.tr/~nursing/>.
- University of Gülhane Military Medical Academy School of Nursing, (2001). Retrieved August, 3, 2001 from <http://www.gata.edu.tr/hyo/index.htm>.
- University of Hacettepe School of Nursing, (2001). Retrieved August, 3, 2001 from <http://www.hemsirelik.hacettepe.edu.tr/>.
- University of Istanbul Florence Nightingale School of Nursing, (2001). Retrieved August, 3, 2001 from <http://www.istanbul.edu.tr/yuksekokullar/florence/florence.htm>.
- University of Istanbul Health Sciences Institute, (2001). Retrieved July, 10, 2001 from <http://www.istanbul.edu.tr/enstituler/saglik/index.htm>.
- University of Marmara School of Nursing, (2001). Retrieved August, 3, 2001 from <http://www.marmara.edu.tr/hyo/index.htm>.
- Velioglu, P., (1985). Hemsirelikte Bilimselleşmeye Doğru. Bozak Matbaası, İstanbul.
- Veziroglu, M.A., Kum, E., Velioglu, P., (1992). Türk Hemsireliğinin ve Ebeliğinin Konumu. Florence Nightingale Hemsirelik Yüksek Okulu. Yayın no:2. I. Ü. Basimevi ve Film Merkezi. İstanbul.
- Yüksek Öğretim Kurumu (YOK). (Turkish Council of Higher Education) (2001). Retrieved June, 5, 2001 from www.yok.gov.tr.

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