

The Educational Development Center: Working for Change, Working with Change

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Introduction

Educational Development Centers (EDCs) in the health sector act as a resource and a catalyst for educational change and therefore have a significant role to play in the professional development of health personnel. The World Health Organisation has actively supported the establishments of EDCs by its member states because of the valuable contribution they can make to improving medical education. This improvement is usually realised through developing more appropriate curricula that reflect the needs of the community, upgrading the quality of education of health personnel and providing support for those involved in these changes.

In the Islamic republic of Iran, since the radical reform of the health services and medical education in 1985, several EDCs have been established in the country in order to facilitate and assist changes envisaged in the reform in

the way health personnel, including the country's future doctors and nurses, were educated. Their remit is to assist universities in the development of a community oriented curriculum, promote good educational practices and encourage research in medical education.

The Center

The EDC of Shaheed Beheshti Medical University, a leading medical university in the city of Tehran, was one of the first EDCs set up in the country. It was established in 1989 and is under the direct supervision of the vice-chancellor for Education.

The key aims of the Center are:

- *Curriculum development* to reform and develop appropriate curricula for a community-oriented, learner-centered education
- *Teacher training*

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to improve and strengthen the quality of teaching and learning in health education.

- *Evaluation*
to facilitate the evaluation of the educational programs.
- *Research*
to promote research in medical education which will contribute to a better understanding of the issues in the field.
- *Continuing Education*
to develop life-long education and professional development.

The EDC works locally, nationally and regionally in bringing about changes in the medical curriculum and promoting professional development. Locally, the Center is directly involved with the university, local hospitals and health centers. At the national level, it works with other EDCs and universities in the country in promoting good educational practices. The Center is organising a national conference of all EDCs in Iran, in preparation for a larger gathering of EDCs from the region. The aim is to exchange views and provide feedback on the operation of EDCs.

Regionally, in 1994, it was appointed a WHO collaborating center for the Eastern Mediterranean region, with the specific brief of networking and promoting medical education nationally and within the region. Since becoming a collaborating center, the EDC has expanded its role and responsibilities and set up links in the Eastern Mediterranean region, providing professional development and support for health personnel in this region. Several members of EDC committees have been involved in short-term consultancies for the WHO in the Eastern Mediterranean region and North Africa which have further reinforced the links within the region.

The Context of the EDC

Shaheed Beheshti University of Medical Sciences and Health Services is one of the three main medical universities in the city of Tehran. In the academic year 1999-2000, 7,423 students (2853 males and 4570 females) and residents enrolled in the university. It also has 918 academic members of staff. The eight faculties that make up the university are: Medicine, Nursing and Midwifery, Dentistry, Pharmacy, Health, Nutrition and Food Technology, Allied Health, and Rehabilitation. The university also has several active research centers. Three leading ones are the Center for Endocrinology and Metabolism, the Center for Lung Disease and Tuberculosis, and the Center for Nutrition.

Apart from its teaching and research commitments, the university is also responsible for the supervision of health care provision for northern and eastern Tehran and the neighbouring cities of Damavand, Firuzkuh, Varamin and Pakdasht. It has in its care a larger complex of 17 hospitals which are affiliated to the university, several district rural health centers and 104 health houses (the basic units of preventive medicine in rural areas). This covers a population of over 3 million and the university has in its employment a personnel of around 13,000 people.

The main teaching hospitals affiliated to the university include:

- Taleghani Hospital, a general hospital
- Imam Hossein Hospital, a leading teaching center.
- Massih Daneshvari Hospital, which specialises in pulmonary diseases
- Loughman Hakim Hospital, one of the most important centers for the treatment of poisoning in Iran.
- Mofid Children's Hospital, a leading paediatric hospital.

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- Shohada Hospital, a general hospital which is an active training center for young physicians.
- Labbafinejad Hospital, which specialises in urology and infectious diseases.

The reform in medical education: the integration of services

The present structure and organisation of the university owes much to a fundamental revision of the medical education system in Iran, in the mid eighties, which altered the way health personnel were trained. In the reforms, two major problems which affected the delivery of an acceptable and appropriate health care were tackled. One was the lack of collaboration and co-ordination between the medical schools and the Ministry of Health. Medical schools, in common with most countries, came under the supervision of the Ministry of Education and the emphasis in undergraduate education in universities was much more on the theoretical and curative aspects of medicine. In contrast, the personnel of the health services, with their experience of preventive and community medicine, were less involved in the teaching program. This often meant that students were not given adequate preparation for their work in the community.

The second problem was a serious shortage of health personnel. This shortage was even more pronounced in the provinces. For example, the city of Tehran had one dentist for every 5000 whereas in the rural areas this ratio was one for every 50,000.

The newly unified Ministry of Health and Medical Education, set up in 1985, merged health services with medical education. Separate medical universities were created and the Chancellor of each university was appointed as the representative of the Minister of Health and Medical Education and given overall

responsibility for the education of health personnel, research, preventive and curative medicine for the city and all urban and rural areas. In order to meet the shortage of health personnel, especially in the provinces, 34 medical schools were set up. More importantly, medical education was decentralised and made more accessible. Medical universities and colleges were established at provincial level, with each province having at least one medical university.

The vision in the medical education reforms was one of creating a curriculum that could best serve the community. As a result, a major priority for universities was to bridge theory and practice. Academic learning was connected with clinical experience, symbiotically drawing upon the expertise of both academics and practitioners. Hospitals were affiliated to universities, creating a better link between clinical and basic sciences education. In addition, many hospitals were converted to teaching ones. Rural field training and outpatient training were included in the curriculum for medical students. This has meant that at all stages of undergraduate training, universities have access to all levels of clinical practice. It was in this context, that the first EDCs were established. Their goal was to work for change, in a changing environment.

The EDC and the university

The Center is located in the main university administrative building. Dr Yadegarinia, the director of the Center and a small, dedicated team of full time academic and administrative staff attend to the day-to-day running and general organisation. The director is responsible for the formulation and implementation of the policies of the Center. He is accountable to a senior advisory committee, consisting of the chancellor, the vice-chancellor for Education and senior members of the university, which oversees the management and direction of the Center. (Fig 1)

The bulk of the work of the Center is carried out through eight committees that have been set up to ensure the aims and objectives of the EDC are achieved. The first committee is Senior Advisory committee which oversees the general activities of the center and plans for the future. The other committees are concerned with research, evaluation, curriculum development, continuing education, English for academic purposes,

international relations, and the promotion of innovative teaching and learning strategies. The last committee is a student committee. It is made up of undergraduate students and residents and provides useful feedback and advice. The committees meet on a weekly basis to plan the programs for the Center and implement them.

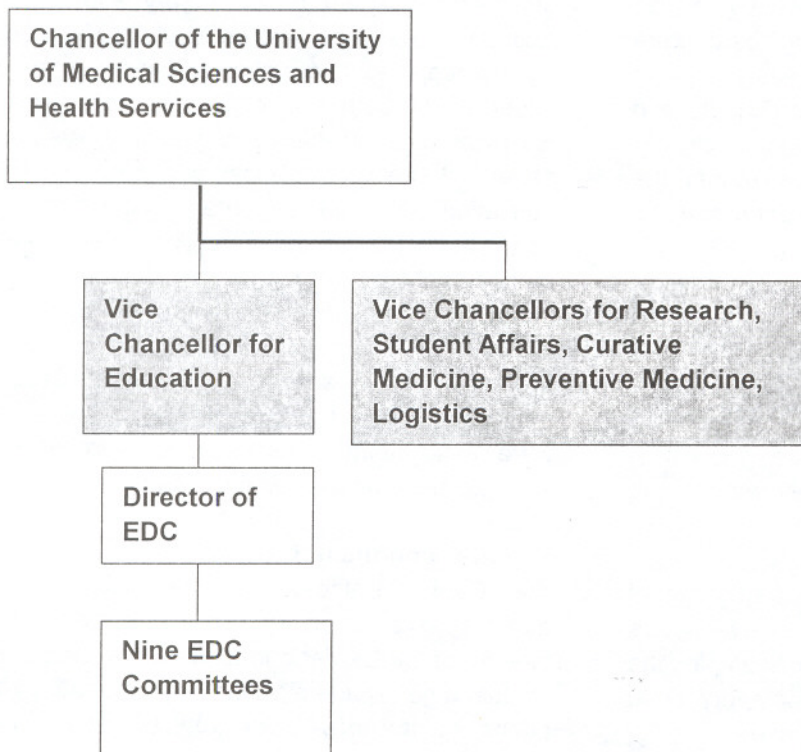


Fig 1. The management structure of the EDC

The committee members are drawn from the different departments of the university and teaching hospitals. Occasionally, members from

other universities and centers are asked to contribute their knowledge and experience. The members bring in with them their experience and expertise, while still being actively involved in

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teaching and research. This form of association with the other departments of the university has the advantage of keeping the Center well within the educational system and therefore better placed to accomplish change. Moreover, the variety of knowledge that the members bring with them adds to the richness of insight and the breadth of views. For example, the members of the curriculum development committee bring their speciality interests with them. These include Infectious diseases, Orthopaedics, Paediatrics, Immunology, Anatomy, Physiology, Pharmacology.

Most of the developmental work in medical education is conducted through workshops, some of which run for two days. The workshops are evaluated and feedback from these sessions is used to improve the quality of the future workshops. There is a well-stocked library which specialises in publications on medical education and an audio-visual support unit.

The following sections provide a flavour of the kind of work that is conducted in the Center by looking at activities of four committees: the curriculum development committee, the teacher training committee, the research in education committee and the English Language committee.

Working for change: Curriculum Development and Teacher Training

The main goal of the curriculum development committee is to develop a curriculum that would be more appropriate for the health professional, since one of the main concerns in the reform of medical education was that learning had to be less academic and more practice driven. As a first stage in the major revision of the curriculum, the main areas of work for this committee have been in linking the academic based, basic science education to clinical education, and in promoting active, student-based learning in the classroom.

One project of interest carried out by the committee has been an action research on upgrading the quality of education and improving curricula with an emphasis on active learning methods in the basic sciences in the School of Medicine. This action research, conducted in 1998, the first of its kind in medical education in Iran, was conducted by Dr Mirzabaygie with the co-operation of Dr Yadegarinia and Dr Basiri. It involved 42 members of staff and 682 students from 8 departments in the basic sciences section of the university. Lecturers were introduced to the concept and methods of active learning, which they then implemented in their teaching.

These sessions were then both formally and informally evaluated. The results of the project indicated that there was a positive response on the part of the staff to new educational practices and there are encouraging signs for further research and development in this area. As a preliminary to developing a more appropriate curriculum for clinical education, a survey of GPs views with regard to community needs has been carried out. In addition, the committee is also conducting a needs analysis for basic sciences education in medical schools in order to draw up a revised curriculum.

The Teacher Training Committee has been actively identifying the educational needs of the medical programs, prioritising them and planning and conducting workshops in the area of innovative teaching and learning methodologies which directly address these needs. Until recently, the committee's work has been mainly concerned with developing clinical education and the teaching of clinical epidemiology. However, now teacher training in the area of the basic sciences is being set up.

A key workshop is the two-day clinical training workshop. This is designed to cover four broad categories. The first deals with planned clinical teaching. The second is the clinical setting. The

third is related to teaching and learning practices and the fourth is concerned with the processes involved in clinical practice. The specific objectives of the workshop are to:

- define the characteristics of physicians and their clinical skills
- define what constitutes a suitable teaching environment
- aid teachers in planning clinical lessons
- aid teachers in planning the clinical curriculum
- give a practical demonstration on clinical decision making in a ward round
- choose and implement the appropriate teaching method as the need arises
- formulate ways for teachers to motivate learners
- aid teachers in learning how to evaluate students and residents in a clinical setting

The committee is also part of an active network of other EDCs in the country, which allows for the exchange of information and views. Committee members are also involved in organising workshops at other universities within the country.

Facilitating the process: research in education

The aim of the committee is to aid the research process and support the growth of good research practices in the field of medical education. It has the responsibility for co-ordinating and supporting research in medical education. At present, the committee is engaged in investigating and prioritising those areas in medical education that need research. As a preliminary task, the members of the committee are involved in setting up a data bank of theses and research articles, written on medical education in Iran, to act as a guide for future research.

The committee has a supervisory role in the research activities of other committees within the Center. Research projects in the EDC first need to be approved by the research committee. It also provides help with data analysis for research projects and supports other committees in carrying out their work, such as the action research on active learning conducted by the curriculum development committee. In addition, the committee closely follows the development and production of the theses written by the Masters in Education students.

Making Links: The English Language Committee

The aim of this committee is to provide support in the use of English for academic purposes. English has become the international language of medicine and most publications are in English. Due to several constraints, these articles cannot be translated into Persian which means that the academic community needs to have a working knowledge of the language. The English Language Committee was set up to fulfil such fundamental needs such as translating and editing research papers written in Persian into English for submission to international journals, organising workshops for the academic staff in order to facilitate their access to international academic research activities; upgrading the Masters in Medical Education students' capabilities in English for Medical Purposes, and assisting the EDC staff to teach in English on some of the courses. Members of the committee conduct workshops in academic literacy, which include understanding the rhetorics of academic texts. The committee is also responsible for all reports and publications in English that come from the EDC.

This committee, along with the research committee, is responsible for the publication of the Journal of Medical Education. The specific tasks of members of the committee are in

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translating Persian academic texts into English and in editing the journal.

The Masters in Medical Education program

The EDC has been running a Master's program in medical education for over four years. This program, the first of its kind to be set up in Iran, is a two-year specialist program which is intended for experienced, qualified health professionals, involved in medical education, who wish to continue their professional development. It was set up to enable lecturers and clinicians, as deliverers of health education, to improve their educational and managerial skills. The main objectives of the program are to enable the participants to be effective

- Teachers
- Managers of Educational Development Centers
- Educational researchers
- Educational evaluators

Participants come from different parts of Iran, and the course organisers would welcome participants from the Eastern Mediterranean region as well. The core courses include principles of education and training, principles of learning, principles of teaching methodology, education and evaluation in clinical medicine, principles of team work and group dynamics, educational planning. A dissertation, approved by the research committee, is undertaken in the area of educational research. Recent Masters dissertations have included:

An evaluation of the continuing education program for the general physicians of Shiraz province.

Researcher: Mrs Moatari

An evaluation of the project for active learning and upgrading the quality of education in the

basic sciences at Shaheed Beheshti University of Medical Sciences and Health Services.

Researcher: Mrs Mortazavi

A survey and comparison of the levels of awareness and attitudes of the Iranian GPs and paediatricians towards the current issues in paediatrics.

Researcher: Dr Shirvani

Theoretical and practical criteria for measuring faculty workload.

Researcher: Mrs Reshadatjo

Conclusion

The ultimate goal for the Center is to establish a community-oriented curriculum and set up the educational practices that will facilitate this. Implementing and managing change is a slow process but there is confidence that the first steps have been taken. Several initial moves have been set in motion including the promotion of active, student-based learning in order to ensure that our health personnel of the future will be there to serve their communities.

The EDC has had the good fortune to have many able and committed people who are dedicated to the ideal of improving medical education. Its chief strength rests in its policy of inclusiveness, drawing upon the talents and experience of others outside the Center, who in turn take the message to where they come from. It places the Center in the heart of teaching and learning and therein lies its success.