

ORIGINAL RESEARCH

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Assessment of current medical specialty programs and new perspectives at training and research hospitals in Turkey

Güven Bektemur, Yunus Karakoc

Department of Medical Education, Faculty of Medicine, University of Health Sciences, Istanbul, Turkey

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Abstract

In this study, we aimed to investigate the problems of Medical Specialty Programs (MSPs) at training and research hospitals and suggest new perspectives to increase the quality of postgraduate medical education. For this purpose, we organized seven multidisciplinary roundtable meetings and workshop with the participation of stakeholders of MSPs in Turkey. In the assessment of MSPs at training and research hospitals, lacking standard program for the residents in some clinics were identified. There were no learning objectives of theoretical lectures or guidelines for professional skill training and surgical intervention. Another problem was lacking any standards for the measurement and assessment throughout the specialty program and final evaluation. The last one was not to be standard resident portfolio demonstrating academic progress such as completed professional skills or surgical interventions. After that, the University of Health Sciences Faculty of Medicine established new commissions for postgraduate medical education in five categories to prepare new perspectives and standards, which were presented for the stakeholders of MSPs one year later.

Keywords: Medical education, medical specialty training, measurement and assessment, quality, training, and research hospital

Introduction

Health care has become increasingly complex and faces enormous challenges in providing quality care to various populations [1]. Significant changes have recently occurred in both healthcare delivery and in the context and methods in which medicine is taught and learned. These changes have brought considerable challenges to all those involved in medical teaching [2]. The competency approach has become prominent at most stages of undergraduate and postgraduate medical training in many countries [3]. The Accreditation Council for Graduate Medical Education (ACGME) has emphasized the development of six core competencies during residency and fellowship training. [4,5] Assessment of specific learning strengths and needs in special education is the process used to determine whether a student is eligible for special education services [6]. The Postgraduate Medical Education Training Board (PMETB) standards for training program emphasize that the primary concern of those supporting junior doctors (including

educational supervisors) is to ensure patient safety, stating that ‘all those who teach, supervise, give counselling to, employ or work with foundation doctors are responsible for protecting patients [7].

In European countries, global standards for quality improvement in medical education for undergraduate and postgraduate medical education and continuing professional development had been determined and released by World Federation of Medical Education (WFME) as European specifications [8]. The General Medical Council (GMC) also sets the standards and requirements for the delivery of all stages of medical education and training in the United Kingdom [9]. Most recently, Australian Medical Council renewed standards for assessment and accreditation of specialist medical programs and professional development programs in 2015 and applied in 2016 [10].

In Turkey, Medical Specialty Programs (MSPs) have been realized in medical faculties, training and research hospitals and some health-care delivery institutions. Even though national core standards have been released from the Ministry of Health Board for Specialty in Medicine Curriculum Creation and Standardization System (TUKMOS), there are some deficits in the application and expanded curriculum preparation.

*Corresponding Author: Güven Bektemur, Department of Medical Education, Faculty of Medicine, University of Health Sciences, Istanbul, Turkey,
E-mail: guvenbek@gmail.com

In this study, we aimed to investigate the problems of medical specialty programs at training and research hospitals and suggest

new perspectives to increase the quality of post-graduate medical education at training and research hospitals affiliated with medical faculties in Turkey.

Material and Methods

In 2016, for the identification of problems of MSPs at training and research hospitals, we organized seven multidisciplinary roundtable meetings and workshop in Istanbul with the participation of stakeholders of MSPs in Turkey (Table 1). For this purpose, rectors or dean of medical faculties from different universities and heads of departments and coordinators from medical faculties and training and research hospitals were invited to roundtable meeting for the assessment of medical specialty programs at training and research hospitals. Program outlines were formed and delivered to the moderator of each group for discussing. Each group discussed the problems of MSPs at 9.00-12.30 and 13.30-17.30 and prepared oral and poster presentations of the report to present on the second day of the meeting. After completed roundtable meetings, several issues on MSPs were also discussed second day as well as of roundtable meetings' reports (Table 2). After the presentations of reports and MSPs-related issues, all the materials were collected, discussed and edited in the present study.

Table 1. List of the groups for discussing MSPs-related issues

Group	Name of the group	Main topics
1	Curriculum	Program qualifications and task list
2	Training Methods	Training methods and use
3	Educational Resource	Time, place, equipment, trainers and materials
4	Legislation	Training standards and supervision
5	Exam group	Measurement tools, report card, measurement tips and evaluation criteria
6	Program assessment	Program assessment models and accreditation
7	Thesis	Increasing the efficiency of thesis studies

Table 2. Issues discussed on the second day of the meeting

Specialty Training in Turkey and the World: Authority, Responsibility, and Process
Specialty Training and Doctorate (Ph.D.) programs
Accreditation in specialty training; the role of associations and medical doctors
Problems in specialty training (Overview of training hospitals)
Problems in specialty training (Overview of affiliated institutions)
Problems in specialty training (Overview of resident)
The future of specialty training
Roundtable meetings' reports

Results

For all discussed issues, agenda and recommendations were presented at the tables 3-9. In the assessment of MSPs at training and research hospitals, lacking standard program for the residents in some clinics was identified. There were no learning objectives

of theoretical lectures or guidelines for professional skill training and surgical interventions. Another problem was not to be any standards for the measurement and assessment throughout the specialty program and final evaluation. The last one was not to be the resident portfolio demonstrating academic progress such as completed professional skills or surgical interventions.

Table 3. Curriculum Group

AGENDA 1	Should there be a core curriculum? Why?
Recommendations	It should be regarding providing a minimum standard of education.
AGENDA 2	What should be the model (if only program qualifications or program qualifications and task list together or in another format)?
Recommendations	The program qualifications and task list should be together. The existing legislation should be updated at regular intervals
AGENDA 3	If yes, how should the curriculum be determined? Partners should prepare? Do people make it? Which institution should apply? Which institution should be supervised?
Recommendations	No
AGENDA 4	If so, how should the program qualifications and task list content be?
Recommendations	The program should consist of the minimum competencies that a specialist student must have.
AGENDA 5	What should be the program qualifications and the level of proficiency? Can the levels of program qualifications be different, such as core, key, enabling (e.g., CANMEDS framework example)? What should be the place for evaluation and evaluation of program qualifications? (Common with the exam group) What should be the clinical task list levels? (Are the codes T, TT, K ... sufficient to generate different codes for different branches of science?) What are the levels of the Interventional Task List (do the 1,2,3,4 codes suffice?) Should the task list competencies be distributed in the future? If yes how? (Common with the exam group)
Recommendations	It is recommended that the existing codes be renewed according to needs. The program competencies should be reviewed every semester and tested by interim exams. Opinions should not be hidden but should be evaluated both in basic competencies and in clinical competencies. The effectiveness of these codes should be assessed.
AGENDA 6	How can the curriculum be implemented by all institutions?
Recommendations	If the curriculum is not implemented, the sanction may be imposed (no assistant quota is given). To be able to apply the curriculum, the UETS, internal and external audits, must be passed on.

Table 4. Training Methods Group

AGENDA 1	Which of the training methods used in international specialty training is suitable for our country?
Recommendations	TUKMOS recommended training methods (structured training events -presentation, seminar, case, article, file, council, course, applied training activities- inpatient, remote patient, independent and discovery learning activities - inpatient follow up, remotely follow patient/peer learning, literature reading, research, teaching), the following methods are suggested.
AGENDA 2	What is the effect of the legislation on training methods in envy specialist education in using these methods?
Recommendations	The subjects specified in the legislation must be implemented in practice.
AGENDA 3	What is the situation regarding standardization of training methods in envy specialist education practices?
Recommendations	Creation of training units within clinics Establishment of rotation and exchange programs to reach clinically unachievable CEP objectives Standardization of training methods such as "Trainer Training" program Standard methods should be used taking into consideration the specialties of the specialist branch
AGENDA 4	How can the correct and effective use of methods be achieved?
Recommendations	Raising awareness among stakeholders about training methods Orientation program about the training program at the beginning of the training Use of evaluation forms for training methods Implementation of an accreditation system in education Routine review of educational standards by TUK or independent institutions Regular feedback from both trainers and trainees
AGENDA 5	What should be the training methods in specialty training?
Recommendations	Structured Training Events - presentation, seminar, case, article, file, council, course Applied Training Events - inpatient, remote patient care Independent and Discovered Learning Activities - inpatient follow-up, remotely follow-up patient/material, peer learning, literature reading, research, teaching Mentoring practice The use of technology Structured small group work Simulation Extension of rotations Brainstorms, decision making, increased use of analytical thinking methods Role modeling Creation of multidisciplinary environments for research Ensuring vertical integration (Basic medical sciences) Significant implementation of legislation required for the implementation of training activity within working hours Structured research education

Table 5. Educational Resource Group

AGENDA 1	What are the educational resources in medical education and what are their educational contribution grades?
Recommendations	Trainer and assistants (quality, quantity, staff, certification) Educational materials and environment (book, internet, laboratory, social areas, simulation, cadaver, etc.) Number and diversity of patients Hospital infrastructure (number of beds, unit and branch variety, equipment) National and international rotations
AGENDA 2	How long, how much and how much should they be when the trainer and the student can distinguish the education in medical specialty training?
Recommendations	Theoretical training should be at least 5 hours per week (including assistant course, council, seminar, case meeting, thesis) Practical training should be at least 10 hours per week, but there may be some branch differences (including outpatient clinic, laboratory)
AGENDA 3	How and where should the standards of space and equipment as a source of training in envy specialist education be in the legislation and practice?
Recommendations	Branch-based criteria specified in TUKMOS curricula must be met An appropriate training environment should be provided. Social needs (rest, sports, dressing, tea etc.) should be provided
AGENDA 4	How should trainer features in environment specialization be in the legislation, how it should be in practice and should it be?
Recommendations	The job descriptions of the trainers should be done well. Standardization developed for specialists working in training and research hospitals should be used. Trainers must be assessed and awarded (including annual training, study activities) Trainers should take training courses.
AGENDA 5	How do the training materials in special education come into effect in legislation and how should they be done in practice?
Recommendations	Theoretical materials: printed books, magazines, etc. Practical materials: simulation center, model, cadavers, animal laboratories (in specific centers), remote access and live surgery, registration system, digital library
AGENDA 6	What are the standards of training institutions for expert education in the legislation, how they implement, and how should they be?
Recommendations	To be able to meet at least 80% of the TUKMOS curriculum, qualifications of trainers, infrastructure, tools, scientific scores and produced works must be provided. It should be in line with EU criteria. The curriculum and other legislation should be by the principles and development declared by the TUK.
AGENDA 7	How should national and international collaborations in envy specialization education be?
Recommendations	Trainees and trainers in the country and abroad should be financially supported, legislation should be developed in this regard, and programs that are provided in the country should be allowed for 3-6-month elective rotations counted during the residency period.

Table 6. Legislation Group

AGENDA 1	Who are the participants in envy training? Who should be? What are the contributions to education? (Trainer, others)
Recommendations	In addition to the legislation, specialists who fulfill the initial conditions must take part in training at intervals Experts have at least two years of expertise to be able to participate in intermittent training
AGENDA 2	What are the conditions for being a trainer in envy specialist training? What should be?
Recommendations	Trainers must be experts in their area
AGENDA 3	What is the contribution of trainer training to specialist training?
Recommendations	It contributes in all aspects of the specialist training. Qualifications for trainer training areas should be assessed every five years
AGENDA 4	How should the educational performance of trainers be assessed? Should it be sanctioned? What if it happens?
Recommendations	Educational performance evaluation criteria should be determined by Faculty Administration and Department of Medical Education
AGENDA 5	Who is chief, authority and responsibility of education according to our legislation?
Recommendations	Respectively; Dean - Chief of the hospital - Head of the department - Chief of education
AGENDA 6	Which organization should make inspection and accreditation of expertise training
Recommendations	National or international professional logically organized organizations for Accreditation and Control of Environmental Quality of Competence
AGENDA 7	Education-Service-Research Triangle Definitions
Recommendations	Number of first and 2nd step patients should be reduced in training hospitals Theoretical courses should be high-quality in-service and out-of-service, and the duration should be increased Clinical research, basic statistics, good clinical practice courses, etc. must be planned.

Table 7. Exam group

AGENDA 1	What should be the assessment (knowledge, skill, attitude) as well as the consideration of learning areas in TUKMOS curricula?
Recommendations	Measurement of essential competencies, clinical competencies and skills should be assessed by suitable methods
AGENDA 2	What should be the types of examination types used for measurement and evaluation (Diagnostic, Formative, Summative)?
Recommendations	Exams should consist of theoretical and practical examinations. Exams for skill training should be made at all times
AGENDA 3	How and by whom should use measurement tools? What should the scorecard/portfolio components be?
Recommendations	Theoretical written exams, clinical practice exams, mini clinical exam, case-based assessments, direct observation exams Measurement and evaluation should be done by all trainers.
AGENDA 4	What should be the evaluation criteria (number, qualification, etc.)?
Recommendations	Theoretical exams should be done every six months and, should be standardized for transitional grades.
AGENDA 5	What should be the contributions of the associations and at what stage?
Recommendations	Competencies in skills and interventional procedures should be determined by TUKMOS in cooperation with associations

Table 8. Program Assessment group

AGENDA 1	What can be the educational effects of program evaluation in resident education?
Recommendations	Program evaluation is a contemporary management approach that sets the level of attainment of a training program as measurable and standardizes regarding repeatable quality, identifies the problems that arise in the process of achieving these objectives, and provides the essential data for program development with managers and enforcers.
AGENDA 2	What can be the training effects of accreditation in specialist education?
Recommendations	The "program evaluation" examined in the previous article constitutes one of the basic standards of pre-graduation and post-graduate education accreditation, and all the positive effects described for item 1 remain valid in this respect.
AGENDA 3	Is the legislation sufficient for program evaluation in enviable professional training? How can it be improved?
Recommendations	The legislation on program evaluation in specialty training is mostly adequate, but its applicability should be increased with the regulations to be made.
AGENDA 4	Is the legislation sufficient for accreditation in resident training? How can it be improved?
Recommendations	The legislation required for accreditation in a joint study by the Higher Education Authority, the Ministry of Health and professional associations, should be established.
AGENDA 5	How is accreditation applied to envy specialist training applications? How should it be?
Recommendations	There should be no requirement for accreditation of specialty training, but incentive regulations and supports (an increase of performance coefficient, regulations on appointment and promotion criteria, etc.) should be presented.
AGENDA 6	How is the program evaluation in envy specialist education? How should it be?
Recommendations	Accreditation criteria may help to standardization of programs.

Table 9. Thesis group

AGENDA 1	What is the contribution of education to the thesis in medical education?
Recommendations	Research collaboration should be established with departments of basic medical sciences. The thesis should be given to the students within the first year. The thesis must be reviewed in that language and statistics to become qualified publication.
AGENDA 2	How does the legislation about thesis in the enviable specialty education define the theology? What's the difference between Ph.D. and specialty thesis?
Recommendations	Ph.D. and specialization are different concepts. The doctoral thesis must be an original idea. In the specialty thesis, knowledge should be produced to solve a health problem, preferably the original idea. The thesis should be done within the framework of certain ethical rules, and the process should be supervised by independent boards such as academic boards Ph.D. should be encouraged, and quality academical training opportunities should be developed. Ph.D. and expertise should be made jointly. The curriculum of both must be defined separately. There is no common legislation on writing a thesis. Legislation must be established for this.
AGENDA 3	What are the problems in preparation of dissertation in envy specialist education practices? How can they be solved?
Recommendations	Certification courses for animal experiments should be increased. Critical and active participation should be ensured by increasing the number of literature presentations and evaluations during weekly training hours Animal testing certification program should be organized, and assistant participation should be encouraged in these courses.
AGENDA 4	How can I improve the quality of my thesis studies in enviable professional education?
Recommendations	The elimination of deficiencies during thesis preparation will increase the quality of the thesis There must be a common interest between the supervisor and the resident The current literature should be searched for the research topic. Thesis preparation should not be in a short time. The methodology should give details for readers. The discussion section should not be prepared in compilation form like the general information section. List of used welding articles should be kept, and sources should be written on the subject. To prevent ethical violations; the research team should not make any changes to the results, but keep the records for at least five years, not to be involved and to play with the statistical results. Scientific publishing courses should be included in the curriculum of education. The name order should be written in ethical rules in publication derived from the thesis.

Discussion

This study was designed to determine the status of MSPs in training and research hospitals in Turkey, if any, areas that can be developed, how to carry out the development in these areas, and how this development can be maintained. It was aimed to determine the parts that can develop the situation in the workshop, to take opinions as “expert opinion” about how to be developed, to determine the forms in the literature and the suitability of these forms to affiliated training and research hospitals in Turkey and finally to determine the points where scientific research should be done about the related field education.

The results of this workshop were intended to be an important step in the training of resident in Turkey and to lay the groundwork for many new developments.

To eliminate or reduce identified problems, Administration of University of Health Sciences and Faculty of Medicine established new commissions for post-graduate medical education under the faculty administration and head of departments in five categories; curriculum, measurement, and assessment, educational resources, program assessment and accreditation, thesis and research. Faculty commissions had prepared new perspectives and suggestions, which were presented for the stakeholders of MSPs one year later at the Quality Course for Postgraduate Medical Education in Kartepe, Kocaeli-Turkey in 2017.

Commissions of postgraduate medical education had prepared a blueprint to improve the quality of MSPs in affiliated training and research hospitals. Newly designed regulations had been realized in different categories of medical education. It was accepted that the core curriculum for each MSP had to include TUKMOS curriculum and trainers had to apply these curricula. If necessary, the extended curriculum may be constituted by adding new competencies or new issues with the authorization of TUKMOS. For the measurement and assessment of residents, theoretical formative exams were planned at the end of each year until the last year and summative exam in the last year of MSP before the final assessment. It was recommended that residents should have a thesis project within the first half of the period for MSPs. The standard portfolio had been prepared for each MSP and printed for each resident to follow the realization of competencies in their fields according to the core or extended curriculum. Commission of program assessment and accreditation had prepared a plan and agenda for assessing of MSPs to reveal unpredicted problems or deficits of this blueprint.

In view of the fact that discussions and suggestions, standardization is the most prominent finding of discussed issues, and new

regulations for MSPs are quite like those of several associations for medical education in many countries such as ACGME, PMETB or GMC [4,5,7,9].

It was suggested that partners with many hospitals such as the University of Health Sciences in a signed organizational protocol, have to make coordination and sharing of administration to be successful [11].

Conclusion

In conclusion, new macro organization and recommendations help to define national standards of medical specialty programs in Turkey, thus led to increasing the quality of postgraduate medical education in these programs. Furthermore, increases in the quality of education will help to improve the health care delivery system and patient's relief.

Competing interests

The authors declare that they have no competing interest.

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References

1. The Association of Faculties of Medicine of Canada (AFMC). The future of medical education in Canada (FMEC). A Collective Vision for MD Education 2009:3.
2. Dent JA, Harden RM. A Practical Guide for Medical Teachers. 2001.
3. Leung WC. Competency-based medical training: a review. *BMJ*. 2002;325:7366:693-6.
4. Schwartz A. Assessment in Graduate Medical Education: A Primer for Pediatric Program Directors. Chapel Hill, NC: American Board of Pediatrics 2011.
5. Downing SM, Yudkowsky R. Assessment in health professions education. New York, NY: Taylor & Francis e-Library; 2009.
6. Pierangelo R, Giuliani G. Understanding assessment in the special education process: A step-by-step guide for educators. Corwin Press; 2005.
7. Cooper N, Forrest K. Essential guide to educational supervision in postgraduate medical education. UK: Blackwell Publishing Ltd.;2009.
8. WFME/AMSE International Task Force. WFME Global Standards for Quality Improvement in Medical Education European Specifications for Basic and Postgraduate Medical Education and Continuing Professional Development. Kandrup Bogtrykkeri A/S, Denmark: 2007.
9. General Medical Council. Promoting excellence: standards for medical education and training. 2015.
10. Australian Medical Council. Standards for Assessment and Accreditation of Specialist Medical Programs and Professional Development Programs. 2015.
11. Bektumur G, Tasci AI, Adas G. Eğitimde farklı bir makro organizasyon modeli olarak Sağlık Bilimleri Üniversitesi. *JAREM*. 2016;6:203-9.