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# Development of Family Medicine Specialist Curriculum in Croatia: Challenging Experiences

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## ABSTRACT

*The specialization in family medicine (FM) was introduced in the academic year 1960/61, but there was an almost 12-year gap in its implementation. Specialized training (ST) was reintroduced in 2003 through the project »Harmonization of family medicine with EU standards introducing a FM specialization«. The aim of this paper is not to present all of the developmental phases of the ST curriculum, but to provide accounts of some of the challenging experiences which might be of help to the readers. Experience in several areas is examined: experience in educational need assessment using focus group method; introduction of a new specialist exam; development of the Study Guide, the Trainee Manual, and the Trainer Manual; selection procedure and training of trainers; and skill-lab training and peer-group learning. Systematic evaluation was planned for the next year, when the current project finishes and is to be replaced by another one. The general impression is that ST in FM is perceived as quite challenging, both for the trainees and for the teachers.*

**Key words:** family medicine, specialization, specialist curriculum, specialist exam, Croatia

## Introduction

Family Medicine (FM), also referred to as general practice, was recognized as a specialty »per se« in the former Yugoslavia and Croatia under the Health Care Act from 1959. The specialization in FM was preparing for a long time and it was introduced in the academic year 1960/61 at the School of Public Health »Andrija Štampar«<sup>1</sup>. It was the first organized specialist training (ST) in the world at the time, but it was soon to become available in many developed countries. It was a huge success in Croatia, with over 40% of family doctors (FD) completing ST and becoming specialists in FM by the mid-1970s. Since Croatia's independence, due to the war as well as economic and political factors, the ST in FM had been almost completely discontinued; just a few FDs completed the training each year and the percentage of specialists in FM dropped below 30%.

Faced with a crises in FD education and Croatia's efforts to join the European Union, which involved the application of regulations prescribing that FDs must have a ST, the academic and professional FM community successfully renewed the ST. The Project »Harmonization of family medicine with EU standards introducing a FM

specialization« was launched in the academic year 2003/04<sup>2</sup>. The renewal of the ST after the long break required a huge effort. Approximately 1,500 Croatian FDs did not have a ST at the time. The ST by itself had undergone major changes all over the world, as well as the academic and professional community in Croatia. The changes were primarily due to the generational shift. All of the above led to the development of a new ST curriculum.

In curriculum development (CD) we started out with the view of a curriculum as being more than a syllabus or a statement of content, describing what should happen in the teaching programme: the intention of the teachers and the way they make this happen<sup>3</sup>. Therefore, we considered ten necessary steps in curriculum development: identification of the needs, definition of the learning outcomes, selection of the content, organization of the content, choice of the education strategy, choice of teaching methods, preparation of the assessment, dissemination of the information regarding the curriculum, promotion of a stimulating educational environment, and management of the curriculum<sup>4</sup>.

The aim of this paper is not to present all of the developmental phases of the ST curriculum, but rather to provide accounts of some of the challenging experiences which might be of help to the readers – educators in the FM training, as well as in others specialist training programmes.

### **The challenging experiences**

The experience in several areas is presented: a) educational need assessment using the focus group method; b) the selection and training of the trainers; c) the development of a study guide and trainee and trainer manuals; d) different ST programmes; e) the skill-lab training and peer-group learning; and f) the introduction of the new specialist exam.

#### *Focus group as a method for identifying educational needs*

In educational need assessment, we used the existing experience of over 40 years, having taken into consideration the contents identified as necessary in the work of a FD and the educational methods proven to be successful. The analysis of the everyday work of a FD in Croatia was also conducted using the existing literature. Additionally, we checked the existing recommendations for the ST curriculum – WONCA, EURACT, UEMO – as well as the curricula from different EU countries<sup>5–7</sup>. After that, we carried out a special research project using the focus group method with all of the stakeholders interested in the quality development of the FM<sup>8</sup>. Six focus group discussions were organized. The first group were policy-makers: representatives of the Ministry of Health, the Insurance Fund and the Croatian Institute of Public Health. The second group was a group of clinical specialists, the consultants that FDs closely collaborate with and that were also involved in previous ST programs. The third group was a group of prominent FDs from the academic and professional FM communities as well as experienced practitioners. The fourth group was compiled of FD team members: nurses, public health nurses, pharmacists, social workers etc. The fifth focus group was a group of patients and the sixth group consisted of young FD, ST candidates. The main questions for the focus group discussions concerned the knowledge, skills, attitudes and competences of FDs to be acquired in ST and required for FDs to fulfill their roles in meeting patients' needs within the Croatian health care system.

Similar answers were collected from all of the groups and they mainly referred to a broad range of diagnostic and therapeutic procedures, communication skills, and health education and prevention procedures. Empathy and compliance with ethical principles were recognized as very important attitudes in FDs. Knowledge and skills related to quality assessment of one's own work as well as the motivation for continuing professional development were also identified as important topics in the ST. All of the recommendations were integrated in the new ST curriculum.

### *Selection and training of trainers*

The selection and training of trainers was a very sensitive issue in curriculum planning for several reasons. Due to the long break in the implementation of the ST, many experienced trainers were retired and had to be replaced. Additionally, a need for new trainers also arose from the fact that a great number of FDs was in demand of the ST. Approximately 150 trainees were planned annually, with each trainer mentoring one or two trainees. Therefore, 220 trainers were selected and trained. The selection criteria were set in accordance with the EURACT and UEMO recommendations and they involved characteristics of the practices and characteristics of the trainers, both as doctors and as teachers<sup>9,10</sup>. Two-day workshops were organized to train the trainers, and a total of 15 workshops were conducted. The following issues were discussed in the workshops: the tasks of the trainers, specifically in the field of FM; educational need assessment of an individual trainee; teaching methods, such as one-to-one teaching, micro-teaching and providing feedback, consultation analysis, and workplace assessment methods. Preparations for the final exam and final reporting were discussed as well as the requirements regarding continuing professional development of trainers according to the EU criteria. A positive outcome of the selection procedure based on the defined criteria and the completion of the workshop were prerequisites for a person to be appointed trainer by the Ministry of Health.

From the present perspective, investment in continuing professional development of trainers is somewhat missing. After the basic training, only several workshops have been organized and not all of the trainers participated. It seems that the standardization of the training process has not been achieved yet, and that the trainers generally rely on their intuition and enthusiasm in fulfilling their roles. Therefore, additional effort should be invested towards professionalization of the trainers' role.

### *The Study Guide, the Trainee Manual and the Trainer Manual*

In order to make the information about the curriculum available, three documents, in the form of booklets, were prepared: a study guide, a manual for trainees and a manual for trainers. The manuals are in everyday use and their purpose is to serve as a sort of a compass for the trainees and the trainers: to guide them in what to do within the ST and how to do. In the Study Guide, the competences and defined learning outcomes are presented, as well as the ways for acquiring them along the ST continuum. It consists of several parts, presenting learning outcomes transferred into three types of contents: postgraduate course, clinical rotations and practical work in FM. A detailed implementation plan is described as well. For example: the trainees should perform 15 rectal examinations or 10 male catheterizations during surgery and urology rotations. A detailed description of the final examination and the assessment methods is also provided, together with the examples<sup>11</sup>.

In the Trainee Manual, the management of the curriculum, or a detailed plan on how to proceed along the continuum, is described, together with the rights and obligations of the trainees. A list of learning outcomes is also included to serve as a self-assessment tool and to help the trainees monitor their development in terms of achieving the defined learning outcomes<sup>12</sup>. A similar manual is prepared for FM trainers, with descriptions of educational methods, i.e. what should be done and how it should be done. A special focus is placed on the description of formative assessment methods, including workplace assessment, as well as on compiling final reports<sup>13</sup>.

### *Different ST programs*

Due to a large number of FDs of different ages who were in demand of training (around 1, 500), three different implementation programs were introduced and are currently applied. In negotiations with the Ministry of Health, as the main stakeholder, it was decided that FDs older than 50 would not be included in the program. Therefore, only FDs between the ages of 25 and 50 are targeted. The first program, called Program A, is a full-time program designed for FDs who are 34 years old and younger. They have to undergo full program and to spend three years in the ST. Program B is designed for more experienced FDs, in the age group 35 to 40. It is an in-service program, involving a 9-month in-service ST in their offices, under the supervision of trainers. Program C targets very experienced FDs, between the ages of 41 and 50. It is also an in-training program, involving a 15-month in-service ST in their offices. Our experience has shown that when many doctors have to be trained in a short period of time, the only solution is to apply in-service training, especially in a country plagued by a shortage of physicians. Otherwise, FM practices would be understaffed and patients would stay without their FDs<sup>2</sup>. Furthermore, in-service training programs are less expensive, which is also important in countries facing financial concerns.

### *Skill-lab and peer-groups*

Two of the applied educational methods might be of interest to readers: skill training and peer-group discussion. During focus group discussions it became clear that future FDs need to be trained in many procedural skills. Therefore, a skill-lab was set up with various models and mannequins, such as mannequins for basic and advanced life support in adults and babies, models for rectal examination, male and female catheterization, gynecological examination, periatricular and intrarticular infiltrations and minor-surgery models and etc<sup>14</sup>. The ST trainees are able to train their skills on models, before they start seeing patients during clinical and FM rotations. Afterwards, the skill-lab is permanently open to the trainees if they need it.

Learning in peer-groups has been a valuable experience. Twice a month, usually on Saturdays, a group of trainees meets and discussed clinical cases which they have encountered in clinical and FM rotations. A form

for written case presentation was prepared and those cases constitute an obligatory portfolio content. The teacher is present, but only as a moderator. A fruitful discussion usually ensues immediately after the case presentation with the main aim to comment on the question: »What would I do in this case?«<sup>15</sup>. This practice apparently continues after the trainees complete the ST and there are now many peer-groups across Croatia.

### *Introduction of the new specialist exam*

In the preparation of the FM specialist exam, two important facts were considered: the high-stake quality of the exam and the need for applying multiple assessment methods. The specialist exam can be categorized as a »high-stake« examination, being administered at the very end of the organized medical education. Therefore, ST trainees have to prove that they are able to provide a high-quality care to patients and that the assessment of performance is more important than the assessment of competences. The second fact taken into consideration is that there is no single valid and reliable assessment method to assess altogether knowledge, skills, attitudes, competences and performance. Therefore, multiple methods are used<sup>16</sup>. Generally speaking, the whole assessment procedure is divided and implemented in two phases: the preparatory phase and the final phase<sup>17</sup>.

In the preparatory phase, ST trainees have to collect evidence of continuing professional development, including portfolio, evidence of workplace-based assessment, trainer final report, and essays. It was challenging to formalize portfolio assessment, since there was only limited experience in portfolio assessment at postgraduate level at that time. Additionally, portfolio assessment should be, by itself, as individualized as possible, which makes standardization of the assessment procedure difficult. Therefore, we decided to include case reports on ST trainees' work at different phases of the training. Additionally, written examples of the application of theoretical knowledge and principles in everyday work are also included in portfolios, as well as the examples of everyday application of various clinical and managerial methods, specific for FM<sup>18</sup>. Several observational instruments were selected for direct, workplace assessment, such as: assessment of the consultation, assessment of overall clinical competence or communication skills assessment<sup>19</sup>. The intention was to motivate the trainers to assess trainees' performance in direct observation and to discuss strengths and weakness in order to raise the quality of their work<sup>20</sup>. Additionally, a structured form of the final trainer report was developed in order to give the trainers an opportunity to provide their opinions and judgments of their trainees, since they spend the majority of time with trainees and have the chance to get to know them best.

All of the collected material, together with eight essays, has to be submitted before the final exam. Since the material is to be read and assessed by the examiners in the oral part of examination, the criteria for portfolio, workplace and essay assessment have been defined. In



order to overcome the inter-rater differences, a one-day workshop was held and nine examiners received both theoretical and practical training in portfolio and essays assessment.

Three types of assessment are utilized in the final part of the specialist exam: written, practical and oral examination. The written test consists of 120 questions, mainly in multiple choice (MCQ) or extended matching (EMQ) format<sup>21,22</sup>. The questions are designed to test the knowledge as well as analytical skills, including inductive and deductive reasoning – skills crucial in the work of every doctor, including FDs. Therefore, a significant number of questions are based on real patient cases. The Objective Structured Clinical Examination (OSCE) method is used in practical examination<sup>23</sup>. The examination typically consists of 20–25 OSCE stations, depending on the number of trainees. Four types of skills are assessed: procedural and manual skills; diagnostic skills, including the interpretation of diagnostic's or lab test; communication skills; and skills in providing information and explanation. The OSCE assessment method requires that the trained observers overcome the inter- and intra-raters differences. 30 observers have been trained for this purpose.

The oral examination is carried out by a panel of three FM academics appointed by the Ministry of Health, and it constitutes the final part of the specialist exam. The candidates have to present and discuss the real patient cases which they have to bring to the examination, together with complete medical records. The final mark in-

cludes the marks in all of the elements of the examination: the portfolio, workplace, trainer's assessment and essays assessment, as well as the written test, OSCE and oral examination. The fact that the candidates and the examiners have found the examination rather complex suggests that the time and resources utilized should be taken into account in designing final examinations in any specialization area in the future.

## Conclusion

To date, around 820 trainees have completed or are still undergoing the ST in FM. Usually, 84% of the candidates pass the final exam in the first attempt; the rest failed and have to repeat certain parts, mostly written part of examination. Systematic evaluation is planned for the next year, when the Project in this form finishes and is to be replaced by another one. The general impression is that the ST in FM is perceived as rather challenging for trainees, requiring great commitment. The ST is challenging for teachers as well. But, retrospectively, there is no trainee who would not enroll in the ST again.

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## **RAZVOJ KURIKULUMA SPECIJALIZACIJE IZ OBITELJSKE MEDICINE: ZANIMLJIVA ISKUSTVA**

### **S A Ž E T A K**

Cilj ovog priopćenja je prikazati neka iskustva u razvoju kurikuluma specijalizacije iz obiteljske medicine (OM) koja bi mogla biti od pomoći drugim kolegama u razvoju njihovih kurikuluma. Specijalizacija iz OM je počela školske godine 1960./61., ali je tijekom devedesetih godina došlo do 12-godišnjeg prekida. Obnovljena je 2003. godine kao Projekt: »Usuglašavanje obiteljske medicine s EU standardima uvođenjem obvezne specijalizacije«. U izradi kurikuluma je poštovano svih deset razvojnih faza. Za prikaz u ovom radu odabrane su samo ova iskustva: procjena edukativnih potreba metodom Fokus grupa, uvođenje novog specijalističkog ispita, razvoj Vodiča kroz specijalizaciju i Priručnika za mentore i specijalizante, izbor i obučavanje mentora, razvoj različitih izvedbenih programa te uvježbavanja kliničkih vještina u kabinetu i rad u peer-grupama. Preko 800 specijalizanata je završilo ili se nalazi na različitim fazama specijalizacije po ovom programu. Utisci su pozitivni, a evaluacija je planirana za 2015. godinu kada završava ovaj program.