BACKGROUND PAPER

Training experts in family medicine teaching

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KEY MESSAGES

- A framework of teaching skills for family medicine ranging from novice to expert was developed in a document.
- This framework was used as a theoretical background for a series of courses, adapted at each level of expertise.
- The result is a sustainable programme for teaching experts for family medicine teachers at different levels of expertise.

ABSTRACT

Family medicine teachers require specific educational skills. A framework for their professional development is essential for future development of the discipline in Europe. EURACT developed a framework on educational expertise, and subsequently applied it in a curriculum of teaching-skills courses of various levels. The aim of this article is to describe the development of the teaching framework, and of an international three-level course programme for ‘teaching-the-teachers’. Furthermore, we describe our experiences and lessons learned, in particular with regard to the level-three programme for proficient teachers, which was new. We conclude that it is possible to develop a theoretical framework of family medicine teaching expertise and to apply it in an international high-level educational programme for future experts in family medicine education. Research evidence of the usefulness of this approach is needed, and the threats for its further development into a sustainable activity are its high teacher/student ratio associated with relatively high costs and difficulties in recruiting suitable participants.

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Introduction

In most European countries, family medicine is a fundamental part of the healthcare system. The European Union has built it into its healthcare policies and it is being developed by non-member states as a means of providing cost-efficient healthcare.[1] However, current EU legislation, whilst describing the length, place and supervision of specialty training, does not describe the skills required for family doctors in the EU.

Family medicine is characterized by its specific set of knowledge, skills and attitudes. Their detailed description was developed and published by the European Academy of Teachers in General Practice/Family Medicine (EURACT),[2] based on the fundamental characteristics of the discipline of general practice published by Wonca Europe.[3]

The delivery of high quality of patient care is impossible without high quality training programmes.[4] Only skilled GP teachers can provide the practice-based education required, at a sufficiently high level.[5,6] Practice-based training is essential to learn family medicine. Lack of teaching competencies of those family doctors who act as trainers is a crucial deficit in this field.[7]

There is a great variation in the way family physicians are trained across Europe that sometimes raises concerns.[8,9] EURACT has as its aim to foster and maintain high standards of care in European general practice by promoting general practice as a discipline through learning and teaching in Europe. Harmonizing the quality of teaching throughout Europe will help achieve this.[10] EURACT has developed a number of teaching skills courses to assist the further professional development of practising family doctor teachers.[11] They were designed to be applicable to teachers in all European countries and aimed at family doctors who are just beginning their teaching career.
These courses for new teachers continue to run all over Europe, but there is little provision for further development of teaching skills. EURACT therefore, decided to survey the perceived learning needs of both new and of experienced teachers of family medicine with the intention of developing an integrated programme of teacher development. The survey identified learning needs in both groups. The needs were different with some overlap. [12]

The aim of this article is to describe a model of targeted training of teaching skills in the field of family medicine in a European setting and based on the expertise model developed by an international author group.

**Developing a framework for teaching-skills training in family medicine**

**The Dreyfus model**

The expertise model described by the Dreyfus brothers looks at the differences between novices and experts in acquiring complex skills. [13] The model describes five stages of expertise: novice, advanced beginner, competent, proficient, and expert. It can be used as a basis for the development of a theoretical framework for the development of a series of teaching activities, adapted to different levels of expertise in teachers. This educational model has been used extensively in nursing education, particularly in the United States, and can be developed in almost any educational field. [14–16] The key to understanding the Dreyfus expertise model is to realize that teachers work differently depending on their level of expertise. For example, novices ‘will have little or no conception of dealing with complexity,’ whereas experts have a ‘holistic grasp of complex situations.’

**Developing a Framework document for family medicine teaching-skills training**

Adapting The Dreyfus model has never been applied to the teaching-skills training of family medicine teachers. Under the leadership of EURACT, an international collaboration was established—involving several institutions and organizations from different European countries—with the intention of developing a European programme of GP skills-teaching based on different levels of teaching expertise. As a first step, a European framework document on teaching skills was developed to serve as a theoretical background for the educational activities. [17]

In the first phase of the project, the application of the Dreyfus model was discussed through a series of meetings. The discussions highlighted that the characteristics of each of the stages of expertise need to be clearly defined for a GP teaching setting. It was decided to leave out the stage ‘advanced beginner’ as its characteristics appeared to be very similar to and to overlap with the stage of ‘competent’ when applied to teaching skills in family medicine.

The competencies for family medicine teaching were derived from a number of sources in medical education literature. [2,9,18] Another important source of information was a survey assessing the educational needs of teachers in Europe. Family doctor trainers from 15 countries were invited to take part in the study. The results of this research have been published elsewhere. [19]

The document that was developed through this process used a four-stage model of teaching expertise (novice, competent, proficient, and expert). This was discussed at an invitational conference of experts in family medicine education, in EURACT Council meetings and at a workshop at the Wonca Europe conference in 2012. A partnership project plan was agreed with six national organizations of family medicine and with EURACT to test this process over two years. If the process proved successful, it could then be suggested to all European countries.

**Developing a course curriculum for family medicine teaching-skills training**

After the framework document had been approved by the EURACT Council, a series of courses were developed to support its application. The model of such a teaching curriculum as part of life-long educational expertise development is demonstrated in Figure 1.

Three sets of courses were developed: for novice teachers, competent teachers, and proficient teachers, respectively. Each course was aimed to enable participants to move to the next level of teaching expertise. The participants of level one and two courses were provided with the teaching resources needed to rerun the course in their home country.

The level one course for novice teachers was designed as a series of six three-hour (half-day) modules, which can stand-alone or be used in combinations. The content included educational theory and its applicability in general practice, principles of programme design, variety of teaching methods, personal learning styles and plans, formative and summative assessment, and organizational requirements for teaching practices.

The level two course for competent teachers was organized as a series of full-day modules. Participants were able to choose three from four modules in a course lasting three days. The subjects were small group
leadership and facilitation, managing problem trainees, teaching from the consultation, and translation of the curriculum to the educational programme.

The level three programme for proficient teachers consisted of two taught parts separated by several months of self-directed study. The term ‘programme’ instead of ‘course’ at level three was used deliberately to stress the expectation that it required self-directed learning. The first part of the course was aimed at developing the participants’ ideas for an educational project. After their return home, the participants had to prepare a detailed plan for a teaching module of their own. Each participant was required to identify and recruit a senior colleague as a mentor to support him or her in completing the programme. Their plans were presented during the second taught part of the programme. Participants had to prepare a 4000-word report on their activity, which was a prerequisite for completion of the course.

Outcomes

The framework document

The framework document describes and defines 13 domains of competence at each of the four levels of expertise, giving 52 descriptors of teaching expertise. The 13 domains of competence are grouped into three categories of teaching activity, i.e. learning environment, provision of education, and educational process (Figure 2). Table 1 shows an example of how this is done in one domain.

Courses

Novice teachers. The level one course was held over six three-hour modules in Turkey in May 2013, with 35 novice teachers from this country and six teachers participating.

Competent teachers. The three-day level two course was held in Ljubljana in October 2013 for an international audience of 16 participants, two from the Czech Republic, Denmark, Greece, Malta, Poland, Portugal, Slovenia, and Turkey. Six teachers ran the course.

Proficient teachers. Fourteen participants from the same countries as in the level two course applied for the programme and all attended its two educational meetings in Portugal. The same teachers as in the level two course were the faculty of the programme. Eleven participants developed and executed their projects; 10 of the 13 domains of the framework were involved in their projects. Participants from eight European countries (Czech Republic, Denmark, Greece, Malta, Poland, Portugal, Slovenia, and Turkey) have successfully completed the programme. An overview is presented in Table 2.

Self-evaluation

In the evaluation of all of the courses, participants stressed the value of the inspiration gained from the teachers and other participants. They also appreciated the constructive and friendly atmosphere of the courses.

In the evaluation of the level three programme, the participants also valued the support of their mentors. The programme flexibility allowed them to adjust their learning to their real needs and local circumstances. They also pointed out that the high level of self-responsibility for the rhythm, speed and timing of their programme activities allowed them to combine rather extensive learning with other professional and private duties. Their reports included exciting ideas about future
educational activities in Europe, ranging from developing an assessment tool, to developing a nationwide programme for the development of departments of family medicine.

**Discussion**

**The framework document**

The idea behind the project was to work towards the harmonization of medical education in family medicine in Europe, which is one of the key goals of EURACT.[19,20] The 13 domains of teachers’ expertise in the framework provides a comprehensive description of the skills needed as a GP teacher. Not every teacher will need to be an expert in all 13 domains to the same level. For example, a university fellow, with little direct practice-based teaching may need to perform as an expert in educational research or teaching theory, whereas a practice-based teacher should master teaching skills, particularly in one-to-one education. Some

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**Table 1. Example of description of levels of expertise on a domain of ‘Learning environment’**

| Domain                  | Novice                                      | Competent                                      | Proficient                                       | Expert                                      |
|-------------------------|---------------------------------------------|-----------------------------------------------|-------------------------------------------------|---------------------------------------------|
| Patient safety          | Ensures highest standards of patient safety at all times. | Balances the needs of service delivery with education. Applies patient safety systems to the training environment. | Is involved in the development of systems of ensuring patient safety in the training environment. Involves patients as educators. | Has responsibility for overseeing the impact of education programmes on patient safety. |
| Management of learning  | Is keen to teach.                           | Organizes teaching in his or her own practice. | Teaches in local practices and in other settings. Adapts and implements all aspects of teaching programmes. | Organizes delivery of teaching in local practices and in other settings. Modifies and develops programmes. Communicates well with all stakeholders. |
| Educational resources   | Aware of the education resources needed for GP teaching. | Able to use available education resources for GP teaching optimally. | Able to develop and provide resources for GP teaching. | Able to plan, coordinate and supervise the development and provision of educational resources. |

**Table 2. Basic data about the reports.**

| No. | Country | Title of the project | Domains involved | Level of education | Range of the project |
|-----|---------|----------------------|------------------|--------------------|----------------------|
| 1   | Portugal| Basic epidemiology course. | Teaching skills. | ST/CPD             | Regional             |
| 2   | Slovenia| Case-based discussion: course for tutors for undergraduate students. | Management of learning. Teaching skills. Educational supervision and support. Assessment and feedback. | BME              | Country             |
| 3   | Slovenia| Teaching about early patient contact. | Patient safety. Educational supervision and support. Management of problems. Teaching skills. | ST               | Regional             |
| 4   | Greece | Group facilitation. | The curriculum. Assessment and feedback. Educational supervision and support. | CPD              | Country             |
| 5   | Greece | Introducing management skills in training for teachers in family medicine. | Working in educational teams. Management of problems. Assessment and feedback. | ST               | Regional             |
| 6   | Poland| Feedback and other educational instruments for optimum cooperation between the trainee and trainer. | Working in educational teams. Educational supervision and support. | BME              | Country             |
| 7   | Turkey | Need-based development planning course for family medicine vocational training units. | Quality improvement. Working in educational teams. | CPD              | Country             |
| 8   | Turkey| Development of an educational programme for outcome based monitoring and assessment of large number of residents in family medicine vocational training. | The curriculum. Assessment and feedback. Educational supervision and support. | ST               | Country             |
| 9   | Denmark| Teaching GP trainers in groups in two different areas: (a) Supervising doctor–patient relationship. (b) Methods of assessment of the trainee. | Teaching skills. Assessment and feedback. Educational supervision and support. Working in educational teams. | ST               | Regional             |
| 10  | Denmark| Course evaluation instruments for optimum feedback and further development of courses and teachers. | Evaluation. | ST               | Local               |
| 11  | Malta  | Consultation observation tool—from competent to proficient. | Teaching skills. Educational supervision and support. Assessment and feedback. Evaluation. | ST               | Country             |

BME, basic medical education; ST, specialist training; CPD, continuing professional development.
teachers will develop considerable expertise and may become expert in a very narrow field of general practice education, and others may wish to remain at a level of proficiency over a broader area of activity. No one will have the same level of expertise in all educational domains as a teacher.

Not every member of a teaching organization will have the same level of expertise in all domains. Teachers who manage departments or programmes have to know the strengths of staff members and ensure a balance of talent so that the organization has all types of expertise at its disposal and to develop a strategy of supporting the educational development of their own teachers in areas of expertise to suit the needs of the organization.

**The curriculum of family medicine teaching-skills training**

The three-level course curriculum serves as an illustration of how the expertise framework can be applied in a practical situation. There are already some reports about faculty development in general practice and courses for the teachers in family medicine.[11,21–23]

EURACT has so far developed several educational courses for teachers on different levels, where more than 1500 trainers participated.[24] The benefit of the project is to help participants to move along a trajectory of professional development as a teacher in a structured way. It enables them to benchmark their level of teaching expertise against a European standard and plan their personal development as teachers accordingly.

The level three programme is a new product, aimed at the future educational leaders of family medicine in European countries. It is pitched at the level of a Masters module, and could be developed into a ‘European Master’ in the future. The participants of this course have developed activities that range from basic to more complex ones. The development of these activities required the development and application of a high level of teaching expertise.

**Reflections**

The ‘framework for continuing educational development of trainers in general practice in Europe’ aims to make a step forward to harmonizing teaching expertise across Europe. It could be used as guidance for personal development plans for individual family medicine teachers and for heads of faculty to design a strategy for faculty development.[17]

The courses that have been developed are just a few steps in this development. It is clear that simply participating in courses will not convert a novice to an expert. The knowledge, skills and behaviours learnt will have to be integrated into the personal work as a teacher in the home context, and continuously developed.

Our series of international courses is a model that can be used on a European scale, also for countries with a longstanding experience in training of family medicine. Research evidence of usefulness of this approach is still needed, but the feedback from the course participants is hopeful in this regard. The threats for this activity are its high teacher/student ratio, giving rise to relatively high costs and difficulties in recruiting suitable participants. Furthermore, the issue of standards regarding accreditation of teachers in family medicine in Europe and quality control and accreditation of courses, organized at local levels, needs to be addressed in the future. We also need to seek for efficient financing to support wide, European implementation of the courses. Until now, it was possible mainly due to substantial project investment, supported by the EU Leonardo da Vinci Programme. Further development is a challenge for the whole European general practice community and even more widely for European healthcare systems.

**Conclusion**

The main lesson learnt from this activity is that it is possible to develop a theoretical framework of family medicine teaching expertise and to apply it in an international high-level educational programme for future experts in family medicine education. We believe and hope that the activity can be developed further in a sustainable way. Research evidence of usefulness of this approach is still needed. Finding sufficient financial support for this activity is another challenge.

**Declaration of interest**

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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