Teaching quality improvement in family medicine

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INTRODUCTION

Quality improvement (QI) includes the combined and continuous efforts of healthcare professionals, patients and their families, researchers, payers, planners and educators to make changes that will lead to better patient outcomes, system performance and professional development.1 QI needs to be taught at all levels of medical education and in all aspects of medical care.2

In family medicine, quality of healthcare extends to all aspects of family doctors’ work: primary care management, community orientation, specific problem-solving skills, comprehensive approach, person-centred care and holistic approach.3

The Educational Agenda developed by the European Academy of Teachers in General Practice/Family Medicine (EURACT)4 covers most of these aspects. However, it is not clear if this agenda includes techniques and competencies of QI. Namely, QI as a separate topic is not specifically mentioned or incorporated in the agenda. This is in contrast with the document set out in the USA by the Accreditation Council for Graduate Medical Education (ACGME) in 1999 involving ‘practice-based learning and improvement’ as the centre of six doctors’ core competences.5

So what happens within the different European countries? Until now, very little was known about the inclusion, content and outcomes of teaching QI topics within the medical curricula in the various countries.6-11 Engels et al published an extensive overview of the situation of teaching QI in the Netherlands in 2007.2

A teaching QI working group was formed in 2008 as part of the European Association for Quality and Safety in General Practice/Family Medicine (EQuiP; a WONCA Europe network organisation). One of the aims of this group was to provide a comprehensive overview of how and at which levels QI is actually taught in European countries. This stimulated the discussion on themes and topics that should be taught and at what educational level they could be introduced in the medical teaching curriculum.
WHAT QI TOPICS SHOULD BE INCLUDED IN A FAMILY MEDICINE CURRICULUM?

EQuIP identified a preliminary list of topics to be taught in QI education in three workshops (brainstorming and nominal group techniques) with international QI experts and the help of representatives from EURACT and Vasco da Gama at EQuIP meetings in Bucharest (2008), Bled (2009) and London (2010).

The 10-topic list (shown below as it was finally ranked by our respondents) was used to evaluate current teaching of QI in primary care in Europe. It is also used as the basis for further discussion about essential competencies and skills in QI which have potential for being defined as additional learning outcomes for specialist training in family medicine and integrated in EURACT’s educational agenda.

IS QI PART OF EUROPEAN MEDICAL CURRICULA?

The data from the literature are deficient but indicate at least some presence of QI at some level of medical education in the UK, Slovenia, Switzerland, The Netherlands, Germany, Poland, Ireland, Denmark, and Belgium.

EQuIP’s web-based survey, conducted in 2010 using an anonymous questionnaire sent to key persons for QI and family medicine education in all European countries (the national representatives of EQuIP, EURACT) and representatives of Vasco da Gama, provided additional data on this subject. We received 176 responses from medical teachers, coordinators, family doctors/general practitioners, family medicine specialty trainees, medical students and administrators from 29 countries. The responses indicate that QI was included in the curriculum of all educational organisations in 16 (55.2%) European countries and at least in one organisation in 24 (82.8%) European countries.

WHERE IN THE CURRICULUM IS QI TAUGHT?

According to the available literature, continuous medical education in some European countries contains guidelines on implementation of topics, leadership role of family doctors, communication, teamwork, and a Plan-Do-Check-Act (PDCA) strategy. In the specialty training, the available data reports on quality assessment of care, evaluation of level of compliance with practice guidelines and a study of a QI project, communication, teamwork and doctor–patient relationship to be a part of some European countries’ curricula.

According to our data, at undergraduate and graduate level, the common QI topics included in curricula are mostly from the field of clinical and communication skills. At the level of specialty training, the most common topics are from the field of patients’ centredness and in continuous medical education, practice organisation and performance skills topics are also included. This is concordant with the changing needs of learners in medical education at different levels. In basic medical education there is a need to learn clinical and communication skills (for better patient outcomes), family medicine GP trainees should broaden their knowledge to become more oriented to and familiar with family medicine’s essential characteristics of the discipline (patients’ centredness and community-oriented approach). In addition, established family doctors need knowledge and skills to achieve better professional development and system performance.

WHAT IS IMPORTANT TO TEACH IN QI?

In the 2010 EQuIP survey participants were asked to rank the importance of the 10 topics mentioned above. The highest ranked QI topic for training and education was ‘dealing with critical incidents or medical errors’ and the least important was ‘using a Plan-Do-Check-Act-strategy for quality projects’. All 10 QI topics were endorsed and ranked by our respondents as follows in decreasing order of importance:

1. Dealing with critical incidents or medical mistakes
2. Learning to implement guidelines
3. Learning to work in a patient-centred manner
4. Learning to work in a team
5. Measuring practice performance and competence
6. Learning how to use the electronic medical records to support quality
7. Learning to manage information
Learning to work with the practice population
Learning how to make leadership of doctors a motor for quality improvement
Using a PDCA strategy for quality projects.

The QI topics, perceived to be most important according to our data, concur with findings from international literature where patient safety, clinical guidelines, patient centredness and teamwork are perceived as critically important factors in QI. However, our respondents emphasised the importance of topics related to clinical skills and ‘reactive’ quality improvement. Therefore, we can assume that QI education is still in its nascent phase. QI consists of more than clinical aspects, but also of practice organisation skills, and their importance seems to be largely underestimated or even neglected by many respondents. The low prevalence of inclusion and particularly low perceived importance of a PDCA strategy illustrates this. Previous studies have shown that PDCA strategies are among the most important tools and methods for quality improvement. Performing a PDCA cycle is useful in developing new knowledge, improving management of patients and of healthcare in general. It is a pro-active way of developing quality improvement rather than solely reacting to medical mistakes after they occur. According to QI experts, the PDCA cycle should be a part of QI teaching at all levels but at least in postgraduate settings of specialist training and continuous medical education.

CONCLUSION

QI in the context of family medicine is multifaceted, complex and challenging. There is as yet only a small bank of international literature on the topic of implementing improvement methods in primary care and little is currently known about teaching QI in this setting. A web-based European survey gives a first impression of the teaching QI landscape in Europe and suggests that some QI topics are already included in the medical education curriculum. It clearly demonstrates wide variations between European countries. The lack of consensus about what should be taught and at what level, is likely to be the main reason why teaching QI is not systematically incorporated into the medical curriculum. This highlights the urgent need for an international consensus on learning outcomes for QI in the medical curricula of undergraduate, specialty training and continuous professional development for family doctors and other specialists. Current knowledge provides a good starting point and incentive for further research on addressing the barriers to adopting QI in general practice and on teaching QI.

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Ethical approval

Not applicable.

Conflicts of interest

The authors declare that they have no conflicts of interest. The first two authors contributed equally as lead authors.

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