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## **13 – Developing Research Capacities in General Practice: the Croatian Experience**

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### **Background**

Vocational training or specialist training (ST) in General Practice / Family Medicine (FM) in Croatia started in the school year 1960/61. It was prepared by the experienced working general practitioners (GP), supported by the academics, public health and clinical teachers from the Zagreb Medical School. The vision was not only based on the development of FM as the primary health care discipline, but also on the academic development of the discipline, which included the development of research capacities. Therefore, ST was organised along three pathways; as a postgraduate course, clinical rotations and the FM practical experience under the supervision of the trainers. A postgraduate course was equal to other postgraduate courses organised by Zagreb Medical School, leading to the obtaining firstly, a Master of Science degree followed by a doctoral degree. At the same time, ST trainees in FM have had the opportunity to proceed toward doctoral degrees and becoming a specialist in FM. Many GPs took advantage of this and obtained Master of Science degrees, and several of them doctoral degrees. A doctoral degree is one of the prerequisites to becoming a FM teacher, in order to fulfil the same criteria as other teachers at the Medical School. It led to the early establishment of the Department of FM; in 1980, three prominent GPs with doctoral degrees were elected as a core staff of the Department of FM at Zagreb Medical School. The ST curriculum was changed several times, with particularly significant changes happening in 2003/04, but the vision remains the same; the availability of a postgraduate course with a special research module, clinical and FM rotations. The aim of this report is to present our experience in the developing research capacities and to evaluate the outcomes in terms of published articles written by the ST trainees.

### **Developing research capacities**

Over 3 years of ST curriculum, out of a total of 900 teaching hours in the postgraduate course, 600 are devoting to direct teaching and 300 hours on individual task-based learning. In the research module, out of 100 hours, 40 are devoted to direct teaching and 60 to work on small research projects under the supervision of mentors with academic degrees. The final requirement is post-graduate diploma work, which should be written and defended in front of three members of a jury. The diploma work is a prerequisite to obtaining a postgraduate degree.

Generally, the research module is designed to develop the trainees' competencies in the posing of a research question, collecting data in response to the question, and

presenting and answering the question (1,2,3). However, the entire educational process was divided in smaller modules. Generally the process is initiated with a discussion on the general nature of the problem, or rather, its context within the research framework in Family Medicine. A group discussion is conducted regarding the importance of the research problem with relation to the ST trainees' interests and preferable outcomes from their working experience. Following this, a literature review is performed to identify flaws or holes in previous research, which provides justification for the study, and is done individually; each trainee undertaking their own literature-search relevant to his/her research inquiry. They learn that a gap in the current literature, as identified by them, will lead to the formulation of a research question which may be parallel to their hypothesis. In data collecting to test the hypothesis, special attention is paid to selection of appropriate research methods, quantitative or qualitative depending on the research question, as well as sampling methods. Knowledge and skills on the basic statistical methods, important for data analysis and interpreting, are standard content. The education process is organised in an interactive way through a combination of theoretical teaching (lectures, small group discussion) and practical work on the defined task, such as data collection. The last part of the module is related to the writing of diploma work, and different types of articles, including the rules on literature citations and publishing.

As mentioned previously, the direct outcomes of the research modules are small research projects completed by each ST trainees, published and defended as diploma work (4). Some of the projects are also published as research papers in different journals and have been presented at the European General Practices Research Network and other conferences (5, 6). Another advantage to such education is the further development of the individual's research capacity. When some of the ST trainees choose to go on to the doctoral study programme lasting three years, this module covers almost one year of the study; and brings him/her 40 ECTS of the 60 ECTS necessary to obtain within one year.

## **Evaluation**

Two types of pilot evaluation were performed, one related to the post-graduate diploma works and another related to the number and content of published articles. We carried out analysis of 420 diploma-works (64.5% of total). 82.1% of them are designed as research, 5.2% as literature review, and 12.6% as case presentations. The majority percentage of the content are related to clinical themes (27.9%). 17.4% are related to organizational issues and methods of work in family practice. In 15.5% of them, specific family medicine themes were surveyed, such as co-morbidity, biopsychosocial aspects and palliative care. 10.7% were dealing with patients' and their health needs. Prior to the start of renewed VT in 2003, 42 articles were published in the official Croatian FM journal by the trainees and subsequently, 71 articles. This accounted for a 69% increase in published articles. 96 articles were published at the Congress Proceeding of the Croatian FM Association prior to renewed VT, and 165 subsequently; an increase in 71.9%. Most of the articles are related to clinical themes (65%), 21% related to FM issues, and around 14% associated with other themes.

## **Conclusions**

The results of the pilot evaluation indicated that it was worth the investment of resources in the development of research capacities in FM. We presented Croatia's model in order to share experiences and to improve overall development of research capacities in Family Medicine consistent with the "Research Agenda for General Practice / Family Medicine and Primary Health Care in Europe" proposed by EGPRN (7).

## **Take Home Messages**

- Research capacities are important for the development of FM as a scientific discipline
- It could be undertaken within the ST training
- The research topics should be relevant to the ST trainees' interest and preferably stem from their working experience
- The "active" educational methods are needed
- The effort is a valuable experience and bring success and satisfaction

## Original Abstract

<http://www.woncaeurope.org/content/research-general-practice-what-and-how-teach>

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