

# Report of a Workshop on Improving the Quality Management of Research within Dental Schools (Faculties of Dental Medicine) Held in Prague on 11-12 November 2011

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## Introduction

The fourth workshop on improving the quality of dental research and dental research publications in Europe was held at the First Faculty of Medicine of the Charles University, Prague, on 11-12 November 2011. It was the latest in series of workshops that have been organised by the European Association of Dental Public Health (EADPH) and sponsored by GABA International. The first was held in Prague in November 2008 and dealt with writing abstracts for scientific meetings. The second was held in Constanta in May 2009 and was on writing scientific papers. The third was also held in Constanta, this time in conjunction with the September 2010 EADPH meeting. It was covered research methodology. There has thus been a logical progression.

The organisers of EADPH meetings and the editors of dental journals who attend them have been aware of the poor standard of many abstracts and papers submitted to them. It is easy to reject them but this does not help their authors or their Faculties of Dental Medicine. It has become apparent that in a number of Dental Faculties, there may be little awareness of the accepted international standards for carrying out high-quality research. This has been manifested by the poor quality of many abstracts and papers submitted from these Faculties. It would be wrong to say that the problem of poor-quality abstracts and papers is limited to a few countries. It is a universal problem that is to be found in all countries; however, it is very apparent that the problem is greater in some countries than in others.

In most countries, academic promotion now increasingly depends on publishing in journals with an impact factor. It is therefore very important that all academic staff are aware of the standards required and are trained to meet them. This is especially true of the leaders within Faculties of Dental Medicine, be they Deans (Decans) or Heads of Research. These people and their successors have the responsibility for improving research standards and the standards of research publications. Unfortunately, when scientific journals, in general, and dental journals, in particular, reject poor papers, all that the authors receive is comments from reviewers. These comments may be some help to the authors in making them aware of the deficiencies of their work but they do not provide in-depth training to help them to improve.

It is against this background that the EADPH/GABA workshops have been held.

## The Aim of the Workshop

The aim of the recent Prague workshop was to help Deans, Heads of Research, and young Faculty members who show interest and may one day be Deans or Heads of Research to improve the quality management of research in their Faculties of Dental Medicine.

## Organisation of the Workshop and Participants

The workshop was organised by Professor Zdenek Broukal (First Faculty of Medicine, Charles University and immediate Past President of the

EADPH) and Professor Kenneth Eaton (University College London and current President of the EADPH). It consisted of a series of presentations followed by small group work on particular aspects of quality management of dental research and plenary sessions during which the small groups reported their findings.

The participants were Deans, Heads of Research, and young Faculty members who show interest and may one day be Deans or Heads of Research. They came from Faculties of Dental Medicine in Albania, the Czech Republic, Denmark, Italy, Romania, Russia and the United Kingdom.

## Day 1

### Welcome

The participants were welcomed by Professors Broukal and Eaton, who explained the aim of the Workshop and the programme. A “round robin” then took place during which participants introduced themselves and explained what they hoped to learn from the Workshop.

### Phase 1: Planning research

The presentation on this topic was given by Professor Eaton, who stressed the crucial importance of a well thought-out and well-written research protocol to the success of any research. He went through the different stages within a protocol, giving examples. He then presented a protocol that had omissions and faults and showed an anonymised recently submitted paper that had been rejected by one of the journals that he edits. From the deficiencies in the paper, it was clear that no protocol had been written for the research that was reported.

Participants then divided into small groups to assess two protocols that they had received a week before the Workshop, together with two recently published papers, one on protocol writing [1] and one on managing research [2]. They then reported back on their findings to all their colleagues and the speakers.

### Phase 2: Monitoring research

There were two presentations on this topic. The first was given by Professor Broukal. He described how undergraduates and graduates are encouraged to undertake research and embark on an academic career and stressed the need for a research environ-

ment in a Faculty of Dental Medicine. He explained the need for support for research and the difficulties of conflicting demands within Dental Faculties. In particular, there is a need to treat patients and earn money, both for the Faculty and for the individual, and this can take up the majority of time during a week. He stressed the need for research productivity in terms of publications and presentations at international meetings and in gaining research grants and funds. He then detailed how Ph.D. projects within Dental Medicine are planned and managed in the Czech Republic. He explained that there were various ways in which a Ph.D. could be undertaken and that students need to earn sufficient money to support themselves during their studies. He analysed the numbers and topics of Ph.Ds on Dental Medicine topics in the Czech Republic over the previous 10 years and reported that 72 had been started, of which 40 had been completed.

The second presentation on monitoring research was given by Dr Barbara Egger-Heigold (Senior Clinical Science Manager, Scientific Affairs, GABA International) who described how commercial companies commission and/or fund and monitor research. She explained that some projects are initiated by the company concerned and others are brought to the company by academic institutions. Dr Egger-Heigold explained what features she looked for when academic institutions sought funding and stressed the need for well thought-out, comprehensive protocols, and regular meetings to check progress and address any problems at an early stage. She then went through the stages of a research project and explained how she monitored such a project to ensure that it was successful. Attention to detail and excellent communication within a research team and with its funder is essential.

Participants then worked in small groups to answer five questions relating to managing patient recruitment.

### Phase 3: Production of research reports (abstracts, papers, others)

After a coffee break, Professor Mike Lennon (University of Sheffield and Editor of *Community Dental Health*) gave a presentation on reasons why papers are rejected by journals. He stated that as far as the journal he edits was concerned, the common reasons were because authors did not follow the guidelines for authors, the paper was on a topic of limited interest to an international audience, or the

English was poor. Of 200 papers submitted to *Community Dental Health* in 2010, only 40 were accepted. This is a fairly common ratio for dental journals with an impact factor.

A week before the workshop, participants had received the abstracts of the 40 papers published in *Community Dental Health* during 2010. The participants divided into small groups and discussed which five abstracts appeared to them to be the “best”. The editorial board of the journal had completed the same exercise a few months ago and had ranked all 40 abstracts. It was pleasing to find that three of the abstracts selected by the two small working groups had been selected by the editorial board as being in the best five and the other abstracts selected by the working groups were from the top 20 selected by the editorial board.

## Day 2

At the beginning of the second day, the participants continued to assess the 40 abstracts to look for the five worst ones. They then discussed their findings and compared them with those of the editorial board, together with the reasons for their choices.

### Phase 4: Achieving better research in dental schools (faculties of dental medicine)

At the beginning of the fourth and final phase of the workshop, Professor David Moles (Head of Research at the Peninsula Dental School in England) gave a presentation on *Achieving Better Research in Dental Schools (Faculties of Dental Medicine)*. He began by explaining that in the United Kingdom (U.K.), all universities are assessed every five years for the quality of the research that they perform. The assessment is carried out by a group of independent academics for the Government. After the assessment, the amount of Government funding for the next five years is dependent on the results of the assessment. The quality of research in U.K. dental schools is measured on the basis of:

- Research outputs (originality, significance, rigour).
- The research environment (vitality and sustainability).
- Impact (reach and significance).

A variety of indicators are used to assess quality. They include numbers of publications in high-impact journals, presentations at international meetings, and amount of grant money gained from outside agencies (Governments, the European

Commission, and commercial companies). He considered that every dental school needed to have a research strategy (an institutional protocol) that covered the following points:

- Context: What is our particular situation? What is our starting point (including resources)?
- Vision/mission: What do we believe in? What is important to us?
- Goals: What do we intend to achieve? How can we develop a research agenda that makes a real difference?
- Actions: What are we going to do in order to achieve our goals?
- Key performance indicators: How are we going to measure our progress?
- Budget/business plan: How are we going to pay for it?

Professor Moles then explained how the new Peninsula Faculty of Dental Medicine had set its research strategy using the points he had listed and how it had progressed over the last two-and-a-half years. As a new school, there had been a unique opportunity. A major challenge had been that there were few full-time staff and they had to spend much of their time teaching undergraduates. The research strategy has been to focus on a few topics, to collaborate with researchers in the Peninsula Medical School, and to encourage visiting staff.

Developing researchers within the school was another key area. This involved mentoring young or inexperienced colleagues to ensure that they had encouragement, opportunities, advice, facilities and protection. Each staff member or Ph.D. student had regular mentoring sessions to ensure that his or her development was planned and monitored.

In summary, to develop research in a Dental Faculty, it was necessary to look at four key areas, which were:

1. The individual
  - Building on their enthusiasm and capacity
  - Providing mentoring
2. The team
  - Connecting researchers together, establishing teams, building on the work of successful teams
3. The organisation
  - Providing necessary support (administrative staff, research support officers, offices, computers and information technology, library, technological support, funding to travel to research events)
4. Networking
  - Establishing links with international research



*networks and actively getting involved in organisations such as the International Association for Dental Research and the Cochrane Collaboration*

Participants then split up into two small working groups that considered the following questions:

- How can I improve the teaching of research skills in my own Dental School/Faculty of Dental Medicine?
- What are the qualities of a good mentor?
- What are the benefits to the mentor of mentoring junior colleagues?

### Reflections

I found that the workshop provided a great opportunity to meet colleagues from all round Europe and to discuss problems relating to research. I think that the participants learned as much from each other as from the speakers. It seems that we all have common issues, as well as some that are unique to our own Faculties of Dental Medicine.

However, I expect that the main issue that our schools especially need to address is developing research capacities by:

- Understanding the importance of research as well as teaching for the dental school.
- Understanding how to plan and write a good research protocol.
- Improving writing for international journals.
- Mentoring and building a good team of researchers, both young and experienced ones.
- Exchanging and collaborating in research project between schools.
- Building strong relations and alliances with the heads of universities and funding agencies.

Also, there is much work to be done just to narrow the differences that exist between the dental schools in Western and Eastern Europe. These workshops are helping to achieve that.

At the end of the Prague Workshop, I was delighted to hear that there will be a fifth Workshop next year, which is also likely to be in Prague, and will cover the topic of *reviewing*. It will cover reviewing abstracts for conferences, papers for peer-reviewed journals, dissertations for Master's and Ph.D. programmes, and grant and other funding applications



*Presenters and participants at the fourth Workshop, held in Prague.*

### References

1. Eaton KA, Santini A. An introduction to research for primary dental care clinicians. Part 3: Stage 5. Writing a protocol. *Primary Dental Care* 2011; **18**: 91-94.

2. Suvan J. An introduction to research for primary dental care clinicians. Part 6: Stage 7. Piloting the methodology and project management. *Primary Dental Care* 2011; **18**: 81-185.