a TOOLKIT for clinical research

Using the EHR for clinical faculty and student research projects

A project of COHRI, the Consortium for Oral Health Related Informatics

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Outline

- Describe the need for tools for faculty and student research in the clinical setting
- Present the purpose of a TOOLKIT for clinical research
- Discuss development to date by a consortium of dental schools
- Provide example sections of the TOOLKIT content
- Discuss pilot testing
- Present next steps in the development, testing and distribution
Clinical faculty

- Little time for research
- Limited training or experience in conducting research
- Need scholarly activity for promotion and tenure
- Difficulties in employing evidence based practice in the clinical setting

Students

- Little time for research
- Limited training or experience in conducting research
- Required to have some research knowledge and/or experience
- Difficulties in employing evidence based practice in the clinical setting
Background: literature

Clinical faculty research


- During the inaugural year (2006–07) of the Academic Dental Careers Fellowship Program (ADCFP)
- 110 faculty members at 10 different dental schools were interviewed by dental students who were participating as ADCFP fellows
**Positive themes**

- **Opportunities for Scholarship (Research and Discovery).** The pursuit of new knowledge through procuring funding, developing new ideas, and publishing (including both basic science and clinically oriented research).
  - *The most satisfying moment of my job is the moment of discovery—the moment when you know something that nobody else in the world knows.*

- **Intellectual Challenge.** Personal and professional stimulation coming from constantly keeping up with the latest clinical techniques or scientific literature.

- **Lifelong Learning.** The enhanced knowledge of the profession gained by being in an academic setting.
  - *If you want to stretch your intellect, you should enter academia.*
Negative themes

- Lack of Mentorship. A lack of a formal or informal mentorship program, which leaves faculty members uncertain about how to advance their careers.
  - *There are no tools, few mentors, and little support.*

- Required Research Emphasis. The disconnect between some faculty members’ lack of interest or lack of training in conducting research projects or procuring grants and the fact that many institutions require some degree of research and scholarship for promotion.
  - *Good teachers are lost because you have experienced expert clinicians who want to teach, and then you force them to attempt to be expert researchers when they have never done that.*
Clinical faculty research


- A mail questionnaire was sent to program administrators for distribution to faculty.
- Program response rate was 89.7 percent (26/29), and full-time faculty response rate was 68.3 percent (114/167)
teaching effectiveness should be the primary criterion for promotion of faculty at their institutions.

research/publications should NOT be the primary criterion for promotion.

Almost 70 percent of faculty Agreed/Strongly Agreed that research is rewarded more than teaching at their institution.
STANDARD 6- RESEARCH PROGRAM

6-1 Research, the process of scientific inquiry involved in the development and dissemination of new knowledge, must be an integral component of the purpose/mission, goals and objectives of the dental school.

6-2 The dental school faculty, as appropriate to meet the school’s purpose/mission, goals and objectives, must engage in research or other forms of scholarly activity.

6-3 Dental education programs must provide opportunities, encourage, and support student participation in research and other scholarly activities mentored by faculty.
Toolkit Purpose

- Provide an **ongoing venue** for clinical research
- **Engage** clinical faculty and students in research
- Promote **collaboration** of basic and clinical scientists
- **Capitalize on available clinical data** from the electronic dental record
Workgroup members

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TOOLKIT Workgroup
A workgroup of COHRI
CONSORTIUM FOR ORAL HEALTH RELATED INFORMATICS

- A consortium of dental schools, hospital dentistry and dental HMOs using the same electronic health record (axiUm)
- Founded in 2007, meets twice per year – once at prior to the axiUm users meeting and once in the summer at member institution
- Structured with Board of Directors, By-laws, Membership and Data-sharing Agreements
VISION

Linking resources for better research and patient care

MISSION

The Consortium for Oral Health Related Informatics will:

- Create, standardize and integrate data using electronic health records
- Cooperate with other health related institutions to share data
- Improve informatics utilization in dental education, health care, and research
- Work together as a consortium to develop research projects to promote evidence based dentistry
- Define and facilitate the implementation of best practices and standards of care

Adopted 2/24/2008
Impact of COHRI

- Standardize EHR data
- Establish IRB protocols
- Promote collaboration
- Improve EHR function
- Website

COHRI Benefits
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www.cohri.org
A TOOLKIT for clinical research

Guiding Principles

- Group based involving all levels and types of students and faculty
- Clinically focused based on EBDM and clinical or translational research
- Ongoing
Development Process

- Identify key topic areas to guide faculty and students thru research process and data mining
- Workgroup members by expertise area develop content and identify reference materials
- Provide “tools” (worksheets, sample forms, diagrams, etc) to facilitate the process and document steps
- Pilot test the TOOLKIT content and process
- Revise, rewrite, disseminate
Identify key topic areas and stepwise process to guide faculty and students thru research process and data mining

Steps
1: identify potential clinical questions
2: format PICO & perform lit search
3: analyze the literature
4: develop protocol
5: IRB process
6: initiate research
7: conduct data analysis
8: write and desseminate
9: evaluate outcomes
10: celebrate!
 Provide “tools” (worksheets, sample forms, diagrams, etc) to facilitate the process and document steps
Pilot test the TOOLKIT content and process:

At ACTA in the Netherlands
ACTA is a collaborative venture involving the Faculties of Dentistry at the University of Amsterdam and VU University Amsterdam.
Question: what is the prevalence of diabetes mellitus in periodontal patients in ACTA as compared to national levels?

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Students: S. M. and D. T.
Next steps

- Continue development of Toolkit
- Conduct pilot projects at 2 or more schools using the same clinical question
- Evaluate pilot projects
- Refine Toolkit and expand use
- Investigate funding sources
Go to www.COHRI.org
or contact
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