



CROWN

Community Research for Oral Wellness Network

Concordance of chart and billing data with direct observation in dental practice

Researchers in the Case School of Dental Medicine recently published results from the Direct Observation Study in *Community Dentistry and Oral Epidemiology*. This analysis reports on the validity of commonly used methods such as dental chart review, billing data, or practitioner self-report compared with a 'gold standard' of information derived from direct observation of routine dental visits. Research hygienists directly observed 3751 patient visits in 120 dental practices and recorded the behaviors and procedures performed by dentists and hygienists during patient contact time. Charts and billing records were retrospec-

tively reviewed for the performed and billed procedures. Dental providers characterized their frequency of preventive service delivery through self-administered surveys.

While chart audits were more sensitive than billing data for all observed procedures, chart and billing records were not sensitive for several prevention-related tasks. Moreover, provider self-reports of preventive service delivery were generally higher than estimates from direct observation. These concordance findings suggest that strengths and weaknesses of data collection sources should be considered when investigating delivery of dental ser-

VICES especially when using practitioner survey data. Future investigations can more fully rely on charted information rather than billing data and provider self-report for most dental procedures, but non-billable procedures and most counseling interactions will not be captured with routine charting and billing practices. Questions for self-reported behaviors need to be as precise as possible to elicit the most accurate answers from practitioners.

Learn more at::

www.blackwell-synergy.com/toc/com/0/0

Student Research Projects for Summer 2008

CWRU dental students have the opportunity to participate in a Summer Research Program each year. Twenty-four CROWN offices have welcomed students in the past on projects such as the oral lesion study and a pilot study about behavior change counseling.

Three students have proposed patient surveys for the CROWN offices to examine: 1) patient knowledge and attitudes regarding the link between oral and systemic health; 2) patient

knowledge and attitudes about caries risk factors and preventive strategies; 3) patient report of preferred dentist characteristics. Each student would like to spend 1 week in 4-5 offices, briefly speaking with patients in the waiting room and administering the surveys. Surveys will be anonymous and can be completed in 10-15 minutes.

As new findings provide evidence for the link between oral and systemic health issues and new caries management proto-

cols based on patient risk factors are promoted, patient knowledge and attitude about these topics remains virtually unknown. Knowing what patients understand and value can help improve communication and possibly motivation for better compliance with recommended home care protocols.

If your office is willing to participate, please call (216-368-8804), email (crown@case.edu) or fax the last page (216-368-5888) to let us know. THANKS!

Staff:

Stephen Wotman, DDS
Howard Bailit, DMD, PhD
Edward Callahan, PhD
Catherine A. Demko, PhD
Susan Flocke, PhD
Donna Homenko, RDH, PhD
James Lalumandier, DDS MPH
Yuqun Ou, MS
Leighanna Pilling, BS
Danny Sawyer, DDS, PhD
Kurt Stange, MD, PhD
Joseph Sudano, PhD
Kristin Williams, DDS
Kristin Z. Victoroff, DDS, PhD
Stephen Zyzanski, PhD



These antimicrobial peptides are disease-fighting proteins that may influence the risk of mucosal diseases both in the oral cavity and elsewhere in the body.

An IRB is a group of individuals affiliated with a university or network of health organizations that has the authority under federal regulation to approve, require modifications in, or disapprove all research activities at an institution.

Saliva Study

CROWN offices have teamed up with the Dept. of Biological Sciences in the Dental School on a newly-funded NIDCR study. The purpose of the study is to examine the quantity and quality of antimicrobial peptides (AMP) in the saliva of healthy volunteers from birth through advanced age. These AMPs are disease-fighting proteins that may influence the risk of mucosal diseases both in the oral cavity and elsewhere in the body. Early studies suggest

that youngsters produce less of these proteins and levels appear to rise through young and middle adulthood. AMP levels may be affected by the presence of certain common bacteria that induce them in the oral cavity, as well as copy numbers of the genes that encode these proteins.

To answer these questions, we are recruiting CROWN offices to participate; 2 offices are currently participating. In this protocol, dentists/hygienists will recruit

about 30 patients, 13 yrs and older, and collect saliva samples, cheek swabs and clinical measures. Standardization and training protocols for practitioners minimize the variability among offices in the collection and handling of all study materials. There is a small incentive for patients and offices. If interested, please use the fax form on the last page or email the CROWN office at crown@case.edu.

Institutional Review Boards

By being part of CROWN and collaborating with other dentists about common experiences, you may come up with an interesting practice based research question of your own. But before you begin collecting data for your project, there are several things you must do first. Because practice based research typically requires patient involvement to some degree in the research process, you must first receive prior approval from an Institutional Review Board or "IRB". An IRB is a group of individuals affiliated with a university or network of health organizations that has the authority under federal regulation to approve, require modifications in, or disapprove all research activities at an institution.

The IRB requires detailed explanations of the proposed research such as how the research will be conducted,

who will participate in the study, any associated risks with the study, possible benefits to participants and/or community, and how the investigators will maintain confidentiality of the data throughout the research process. The review of this application is completed by members of the IRB and can be a quick 5-day process if it found to be exempt from causing any more than minimal risk. For more complex research protocols, IRB approval may take an upward of three to four months to receive approval. For full review, the detailed new protocol application is sent to an IRB committee which meets once a month to discuss the research proposal and to determine if revision of the plan is needed. If the IRB finds deficiencies in the protocol, it is either sent back to the investigator for further revision or it is denied. Only after the IRB has granted full

approval, can the research process continue.

Of particular importance is the patient consent process, which requires time for patients to fully understand the research protocol and to make an informed decision about participation. Patients must never be coerced to participate in a study.

Participating in research and the generation of new knowledge is an exciting endeavor and CROWN offices have a unique opportunity to part of that process. And the safety and well-being of our patients remains the top concern in research as it is in the delivery of care.

To learn more about the IRB application process at Case log onto:

<http://fpb.case.edu/Research/irb.shtml>

Revisiting Comfort: Strategies Observed in the Direct Observation Study

The Direct Observation Study has provided us with a wealth of knowledge about our patients and providers. In a paper published in *General Dentistry* in 2007, the concept of comfort was examined through qualitative analysis collected in the 120 participating practices (Abbe, et al 2007).

Fear of treatment can create a barrier to patients receiving care. To date, most studies about dental anxiety focus on phobic patients; the results of this study explore strategies performed by dentists, dental assistants, and hygienists to comfort patient populations as a whole, not just targeted groups. Research on provider-patient interactions confirms overall patient satisfaction relies on several factors. The perception of control and trust are key as well as good communication, dentists' explanation of procedures, and acknowledgment and discussion of anxiety issues.

This study provides examples from qualitative notes to describe a range of strategies used by dentists, hygienists, and assistants to address patient anxiety during actual patient visits. For three days, two teams of hygienists observed dentists and hygienists in each of the 120 Ohio practice sites. The main observation tool for the encounter was the Davis Observation Code (DOC), a previously validated instrument to record physician behavior, adapted to dental practices (the dental DOC). All team members maintained

logs of the qualitative data and observed a total of 3,751 visits between June 2004 and September 2005.

Among the 24 possible interaction codes, one code was used to capture behaviors that providers used to make patients more comfortable—the comfort code. The presence of the comfort code was recorded within a 30-second interval anytime the dentist or hygienist discussed the current physical/emotional status of the patient during the procedure, provided reassurance or support, or used self-disclosure. Comfort was coded anytime the provider asked about the patient's comfort level.

The following themes were developed from the observation team notes:

Environmental distractions:

“Patient No. 33 was telling me that the doctor used to have a mural of a big tree and she used to love looking at it while she got her teeth worked on because it was so relaxing. The hygienist stated she had something better, she dimmed the lights, and put in a relaxation CD—the patient loved it.”

Another comfort theme was *visual and verbal noticing*:

“Patient No. 32 was a surgical extraction. The DDS checked with her every minute or so to make sure she was okay and not feeling any pain. The assistants would also check in.”

Another theme coded as comfort code was *Addressing patient anxiety*

“Patient No. 2 had not been to a dentist in 40 years. During the initial consult the patient told of bad experiences she had when she was younger and she started shaking. The DDS spent a lot of time calming her...the doctor told her what to expect every step of the way.”

Providing information to patients about the planned procedures and what they will hear or feel gives them a realistic expectation of what will happen. Remembering to “check-in” with patients and being observant to body language during treatment tells patients you care about their comfort. These examples of different comforting strategies may help the dental team to approach the issue of patient comfort in a more explicit fashion.





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School of Dental Medicine
Case Western Reserve University
10900 Euclid Avenue
Cleveland, Ohio 44106-4905

Deliveries:
2123 Abington Road
Cleveland, Ohio 44106-4905

Phone: 216-368-8804
Fax: 216-368-5888
E-mail: crown@case.edu

Fax Form

Please use this back page to fax us with your comments or interest in participating or learning more about the available study opportunities.

FAX: 216-368-5888

___ I am interested in participating in the Saliva Study.

___ I am interested in hosting a Summer Research Dental Student Survey.

A new Leadership Committee is being formed to develop Network research ideas and activities. It would involve 2-3 meetings per year; we have received some funding for attendance reimbursement. If interested in more details, check here_____.

COMMENTS: _____
