Staying up-to-date … for the next 35-40 years

Oral Health Care Delivery
October 22, 2003

What is a profession?
- Prestige?
- High-income potential?

What is a profession?
- A monopoly
- How do we get this privilege?

What is a profession?
- Expertise –
- Code of ethics
- What do we get in return?
- Autonomy

Challenge of the profession/al
- Challenge of maintaining expertise
- Staying up-to-date in your field

Types of information directed at clinicians
- 1) Info that describes available treatments
  – without providing a basis for choosing among them
- 2) Info that describes biomedical/dental research results
  – without exploring their clinical implications
Types of information directed at clinicians

3) Info designed to deliver practice-relevant information
   - Effectiveness and outcomes research
   - Information concerning which practices lead to better outcomes

Effectiveness and outcomes research

- Goal is to improve the quality of health care provided to patients
  - Especially health outcomes
- How to achieve reach the clinician and make this happen?

Effectiveness and outcomes research

- Dissemination issues
  - Need to reach practitioners
  - Crucial role in determining whether goal is realized
- Behavior change issues
  - Effectiveness/outcomes research will not have an impact if...
  - It does not convince practitioners to comply

Dissemination of information

- Process of communicating information
- Sources
  - Biomedical/dental research
  - NIH panels
  - Professional associations

Dissemination of information

- Transmitted through various media
  - Journals
  - Conferences
  - Word of mouth
  - Popular press

Dissemination of information

- Reaches various audiences
  - Policymakers
  - Health care providers
  - Payers
  - Consumers
Does dissemination of information change behavior?

- It is assumed that when providers encounter new information suggesting they should change the way they treat their patients
- That they are willing to change

Does dissemination of information change behavior?

- Quality of care likely to be achieved
  - Only if relevant research findings and guideline recommendations
  - Appropriately incorporated into practice

How does profession influence behavior?

Modes of professional influence

1) Regulatory influence
   (Threat of punishment/prospect of reward)
   Present-day manifestations of regulatory (or direct) influence can be found in:
   - Third-party reimbursement policies
   - Threat of malpractice
   - Sanctions by peer review or other authoritative bodies

Modes of professional influence

2) Normative influence
   Impressions of what the profession expects you to do
   - What your colleagues expect you to do
   - What the "experts" expect you to do
   - What your patients expect you to do
   - What the professional leadership expects you to do

Modes of professional influence

3) Informational influence
   - Factual influence
     Providing information that leads to belief that should change your practice

Informational influence

Informational influence – mode of influence that characterizes dissemination efforts
1. Randomized clinical trials
2. Consensus recommendations
3. Clinical practice guidelines
4. Continuing education courses
1) Randomized clinical trials
- Results of randomized clinical trials reported by scientific investigators
  - Seek to document their methods and results for the scientific community
  - May have no specific intent to shape practitioner’s behavior

2) NIH consensus conferences
- One of the most visible activities aimed at disseminating information on state-of-the-art therapy
- National Institutes of Health (NIH) Consensus Development Program
  - conducts evaluations of biomedical/dental technologies
  - produces and disseminates consensus statements
  - aimed at health care providers, the public, and the scientific community

Systematic reviews in dentistry

Use of the “systematic review” as alternative in dentistry
- 1) Identify questions to be answered
- 2) Define study inclusion/exclusion criteria
- 3) Conduct literature search
- 4) Abstract the articles
- 5) Evaluate the evidence

RCT’s – influence clinician’s behavior?
- Fineberg reviewed many studies of effects of clinical evaluations on physicians’ behaviors
- Despite difficulty in discerning long-term effects of RCTs
  - clear that physicians do not respond rapidly or in large numbers to newly published findings of RCTs
- In many cases, little or no change in practice even after a considerable amount of time

2) NIH consensus conferences
- Consensus statements prepared by a nonadvocate, non-Federal panel of experts based on:
  - 1) presentations by investigators working in areas relevant to question
  - 2) presentations made during 2-day public session
NIH consensus conferences

3) questions and statements from conference attendees during open discussion periods are part of the public session
4) closed deliberations by the panel during the remainder of the second day and morning of the third

5) statement is an independent report of the panel and not a policy statement of the NIH or the Federal Government
6) statement reflects the panel’s assessment of knowledge at the time written
   – Provides a “snapshot in time” of the state of knowledge
   – When reading the statement, keep in mind that new knowledge is inevitably accumulating through research

NIH Consensus Conferences pertaining to dentistry

- Dental implants: benefit and risk – June 1978
- Removal of third molars – Nov 1979
- Dental sealants in the prevention of tooth decay – Dec 1983
- Dental implants – June 1988
- Oral complications of cancer therapies: diagnosis, prevention, and treatment – April 1989
- Diagnosis and management of dental caries throughout life – March 2001

Study evaluating the NIH Consensus Development program – Rand Corporation – David Kanouse

- Used medical record review (behavior) to examine changes in hospital-based procedures that were subject of conference
- Physician’s self-reported preferred practices were strongly related to what actually did
- Although program’s dissemination effort was moderately successful at reaching the appropriate target audience
- the conferences mostly failed to stimulate changes in physicians’ practices.

Clinical practice guidelines (CPG)

- Systematically developed statements
  - to assist practitioner and patient decisions
  - about appropriate health care for specific clinical circumstances
- Their successful implementation should improve quality of care
  - by decreasing inappropriate variation
  - and expediting the application of effective advances to everyday practice

PHS guidelines on treating tobacco use

- Clinicians’ primary prevention behavior in the practice setting
- should be based on the “Five A’s”
  - Ask: extent of smoking
  - Advise: urge strongly to quit
  - Assess: determine willingness to make quit attempt
  - Assist: aid patient in quitting
  - Arrange: schedule follow-up and referral, if appropriate
Clinical practice guidelines (CPG)

- Despite wide dissemination, guidelines have had limited effect on changing clinician behavior.
- Little is known about the process and factors responsible for how clinicians change their practice standards.
- When they become aware of a guideline.

Methods

Data Collection
Mail survey of representative samples of dental general practitioners and periodontists in the northeastern USA

Sample = 360
Responses = 208
Ineligible = 86 (GP = 105)
Eligible = 274 (Perio = 103)

Overall response rate = 76%

Methods (cont.)
Mail questionnaire
4 pages, closed-ended items

Analysis Plan:
- Compare GP and Perio...
- Behaviors, attitudes, and orientations:
  - Smoking cessation activities in the office
  - Evaluating/managing diabetes risk in the office

Do you or does someone in your office routinely ask/advise/assess...

<table>
<thead>
<tr>
<th></th>
<th>GP %</th>
<th>Perio %</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record info in charts re use</td>
<td>45 (n=46)</td>
<td>80 (n=82)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Advise patients to quit</td>
<td>42 (n=44)</td>
<td>67 (n=69)</td>
<td>.002</td>
</tr>
<tr>
<td>Ask if interested in quit</td>
<td>21 (n=21)</td>
<td>59 (n=60)</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Do you or does someone in your office routinely assist...

<table>
<thead>
<tr>
<th></th>
<th>GP %</th>
<th>Perio %</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set quit date?</td>
<td>68 (n=70)</td>
<td>51 (n=50)</td>
<td>.004</td>
</tr>
<tr>
<td>Advise over-the-counter aids?</td>
<td>29 (n=30)</td>
<td>16 (n=16)</td>
<td>.002</td>
</tr>
<tr>
<td>Advise Rx aids?</td>
<td>38 (n=39)</td>
<td>20 (n=20)</td>
<td>.001</td>
</tr>
</tbody>
</table>

Do you or does someone in your office routinely arrange...

<table>
<thead>
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<th>Perio %</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide form of follow-up</td>
<td>51 (n=63)</td>
<td>34 (n=35)</td>
<td>.002</td>
</tr>
<tr>
<td>Refer to cessation clinic/pgr.</td>
<td>58 (n=60)</td>
<td>41 (n=41)</td>
<td>.008</td>
</tr>
</tbody>
</table>
Barriers to CPG adherence

Adherence to guidelines may be hindered by a variety of barriers
- A theoretical approach can help explain these barriers
- Possibly help target interventions to specific barriers

Knowledge-related barriers

- Lack of awareness
  - The inability to correctly acknowledge a guideline’s existence
- Lack of familiarity
  - Included the inability to correctly answer questions about a guideline’s content as well as self-reported lack of familiarity

Overall, how would you rate your knowledge:

<table>
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<th>Perio (%)</th>
<th>Sig</th>
</tr>
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<tbody>
<tr>
<td>Assoc of tobacco use w oral dis</td>
<td>23 (n=24)</td>
<td>52 (n=53)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>What to include in smok cess msg</td>
<td>4 (n=4)</td>
<td>18 (n=18)</td>
<td>.004</td>
</tr>
<tr>
<td>How best to deliver smok cess msg</td>
<td>2 (n=2)</td>
<td>8 (n=8)</td>
<td>.182</td>
</tr>
</tbody>
</table>

Attitudinal barriers

- Lack of agreement
  - Differences in interpretation of the evidence
  - Belief that benefits not worth patient risk, discomfort, or cost
  - Applicability to the practice population
  - Guidelines oversimplified or “cookbook”
  - Guidelines reduce autonomy
  - Authors’ lack of credibility, bias

Attitudinal barriers

- Lack of self-efficacy
  - Belief that s/he cannot perform guideline recommendation
- Lack of outcome expectancy
  - Belief that performance of guideline recs will not lead to desired outcome
How confident are you in your ability to:

<table>
<thead>
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<th>Perio (%)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide smoking cessation counseling</td>
<td>10 (n=18)</td>
<td>19 (n=19)</td>
<td>.316</td>
</tr>
<tr>
<td>Convince patients to quit smoking</td>
<td>7 (n=7)</td>
<td>18 (n=18)</td>
<td>.037</td>
</tr>
</tbody>
</table>

Attitudinal barriers

- Lack of motivation/
  - Inertia of previous practice
    - Habit
    - Routine

In my private practice I am willing to:

<table>
<thead>
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<th></th>
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<th>Perio %</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide smoking prg in office</td>
<td>17 (n=19)</td>
<td>28 (n=28)</td>
<td>.09</td>
</tr>
</tbody>
</table>

External barriers

- Patient factors
  - Inability to reconcile patient preference with guideline recs
- Guidelines
  - Guideline characteristics
    - Difficult to use
    - Not convenient
    - Cumbersome
    - Confusing
    - Presence of contradictory guidelines

External barriers

- Environment
  - Lack of time
  - Lack of resources – insufficient staff or consultant support
  - Lack of reimbursement
  - Perceived increase in malpractice liability

External Barriers GP: Hinder my taking a more active role in performing smoking cessation activities – Very/somewhat likely

<table>
<thead>
<tr>
<th></th>
<th>Lack of continuing education opportunities</th>
<th>View smoking cessation activities as peripheral</th>
<th>Concerns about patient compliance</th>
<th>Patient resistance/ complaints</th>
<th>Amount of time required</th>
<th>Lack of reimbursement mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>38 %</td>
<td>51%</td>
<td>64%</td>
<td>67%</td>
<td>56%</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>(n=37)</td>
<td>(51)</td>
<td>(63)</td>
<td>(66)</td>
<td>(55)</td>
<td>(45)</td>
</tr>
</tbody>
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Patient factors

- Inability to reconcile patient preference with guideline recs

Guidelines

- Guideline characteristics
  - Difficult to use
  - Not convenient
  - Cumbersome
  - Confusing
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Environment

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