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 trails 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

Systematic reviews in dentistry

- Bader, JD, Shugars DA, Bonito AJ. A systematic review of the performance of methods for identifying carious lesions. Journal of Public Health Dentistry, 62: 201-213, 2002.
- Bader, JD, Shugars DA, Bonito AJ. A systematic review of selected caries prevention and management methods. Community Dent Oral Epidemiol 29: 399-411, 2001.
- Bader, JD, Shugars, DA, Bonito AJ. Systematic reviews of selected dental caries diagnostic and management methods, J Dent Ed 65: 960-968, 2001.

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

- 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

NIH consensus conferences

- http://consensus.nih.gov
- 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

NIH consensus conferences

- 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

NIH consensus conferences

- 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…

	GP %	Perio %	Sig.
Almost/Always			
Record info in charts re use	45 (n=46)	80 (n=82)	<.001
Advise patients to quit	42 (n=44)	67 (n=69)	.002
Ask if inter-ested in quit	21 (n=21)	59 (n=60)	<.001

Do you or does someone in your office routinely assist…

	GP %	Perio %	Sig.
NEVER			
Set quit date?	68 (n=70)	51 (n=50)	.004
Advise over –the-counter aids?	29 (n=30)	16 (n=16)	.002
Advise Rx aids?	38 (n=39)	20 (n=20)	.001

Do you or does someone in your office routinely arrange…

	GP %	Perio %	Sig.
NEVER			
Provide form of follow-up	51 (n=53)	34 (n=35)	.002
Refer to cessation clinic/prg.	58 (n=60)	41 (n=41)	.008

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

Barriers to CPG adherence

Cabana et al., Why don't physicians follow clinical practice guidelines, JAMA 282 (15), October 20, 1999, 1458-1465.

- Barrier defined as "any factor that limits or restricts complete physician adherence to a guideline"
- Focus on those that could be changed
- As a result did not consider age, sex, ethnic background, or specialty of the clinician

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 guidelines content as well as self-reported lack of familiarity

Overall, how would you rate your knowledge:

	GP (%)	Perio (%)	Sig.
EXCELLENT			
Assoc of tobacco use w oral dis	23 (n=24)	52 (n=53)	<.001
What to include in smok cess msg	4 (n=4)	18 (n=18)	.004
How best to deliver smok cess msg	2 (n=2)	8 (n=8)	.182

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:

	GP (%)	Perio (%)	Sig.
VERY			
Provide smoking cessation counseling	10 (n=10)	19 (n=19)	.316
Convince patients to quit smoking	7 (n=7)	18 (n=18)	.037

Attitudinal barriers

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

In my private practice I am willing to:

	GP %	Perio %	Sig.
Agree Strongly			
Provide smok cess prg in office	17 (n=18)	28 (n=28)	.09

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

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