



Risky Business: Influencing People to Change

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ABSTRACT The evolution of prevention methods represents a positive development of significant value. Managing the behavioral components of prevention is crucial to create buy-in by staff and patients. Numerous recommendations for successful implementation of CAMBRA are cited. It is important for dentists to establish which option works best with each employee, and for the dental care team to do the same with each patient in the practice.

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Prevention of dental disease has a long, but sketchy history, typified by behavioral ambivalence on the part of patients and practitioners alike. A case could be made that of all the relevant stakeholders, manufacturers of toothpaste have taken the most consistent stance toward effective preventive dental care. In the 1940s and 1950s, practitioners searched for “recipes” to induce appropriate patient behavior. In the 1950s and 1960s, the U. S. Public Health Service studied fluoridation and promoted its implementation as part of preventive services. Some dental schools hired behavior scientists to develop community prevention protocols. The 1980s saw increased attention to health promotion and disease prevention in both research and practical arenas. In the 1990s, goals and timelines were developed to reduce dental disease, and in the 2000s, significant research on caries risk assessment and its implementation within dental education was completed.^{1,2}

Technical advances in prevention have evolved over the years to include improvements in toothpastes and brushes, enhancements in brushing techniques, radically different floss technology, expanded techniques in fluoride application (both systemic and topical), instrumentation using rubber tips and toothpicks, additional mouthwash formulations, dietary recommendations that are supported by empirical data, advances in adhesive dental materials (e.g., resins and glass ionomers), increased awareness of the negative effect of tobacco and substance abuse, and management of systemic diseases likely to have a negative impact on oral health (e.g., diabetes and cancer). Recent developments in caries risk assessment, while helpful in managing dental disease, have added a level of complexity for patients and practitioners alike.

Successful prevention requires an understanding of all of the options available for maintaining oral health along with patient “participation and cooperation, and

a practitioner who can facilitate participation and cooperation.”³ In other words, technology has advanced to a stage where real prevention can take place, but it requires a significant change in the behavior of dentists, hygienists, and patients.

Such a situation is not unique to dentistry or novel in the human experience. Most people know french fries are not good for them. We know we should exercise regularly. We should start working on our taxes late in January. We should moderate alcohol intake, eat more broccoli, and floss our teeth. Yet, we often do not do those things that are clearly in our own best interest.

For example, prevention in dentistry includes educational techniques for effective plaque removal. Unfortunately, studies have shown that while patient education may increase knowledge, it often provides only temporary improvements in plaque control.^{4,5} The 2003 American Dental Association Public Opinion Survey determined that while more than 86 percent of women met the ADA recommendation of brushing at least twice daily, less than 70 percent of men met this standard.⁶

As the complexity of prevention increases the disparity between what we know and what we do is likely to widen. If prevention in dental care is to really take hold, an understanding of short and long-term behavior change process seems essential. It is clear we cannot simply tell patients (and dentists) to do what we know is good for them. That is not likely to result in actual behavior change.

Challenges

It helps to know the enemy if you are to engage in a serious fight. What follows is a listing of some of the real and perceived challenges that CAMBRA and disease prevention currently face.⁷

- CAMBRA is a new and different form of dental health care. It requires that significant resources be spent on nonsurgical methods, many of which are not currently a part of the culture of the profession.

- CAMBRA is a complex process involving numerous treatments that must first be learned by the dental health care worker then effectively passed on to the patient and accommodated into their daily schedule.

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- Patient training is perceived as more time consuming than traditional preventive techniques.

- Significant recordkeeping is an essential component of the CAMBRA approach.

- There are costs to both patient and practitioner. Third-party payers typically do not provide compensation or reimbursement for these procedures and materials. A fair and comprehensive fee structure for these procedures has not yet been determined by practitioners, nor are CDT codes fully established.⁸

- The vast majority of dental practices, even those enthusiastic about prevention, have not established an efficient, workable method to manage the process in a real-life private practice.

- Dental health care workers have not generally demonstrated the ability or

capacity to conduct reliable follow through with patients over extended periods of time.

- Efficacy is not yet well established in the literature. There are many studies with promising results; however, numerous faculty members and practitioners believe there is not yet a rich, comprehensive literature on the efficacy of CAMBRA.⁹

Taking Behavior Seriously

If CAMBRA is to have any realistic chance of succeeding as a paradigm shift in dental care, the behavioral side of the equation must be taken seriously. Lip service will simply not suffice. First, it must be said, dentists themselves have to truly “get on board.” If dentists do not believe in the efficacy and value of prevention methods, patients are unlikely to succeed. Dentists must be willing to take the time and make the effort to demonstrate that they are serious about CAMBRA and its implementation. To do this, change is required and change is a complex process.

Stages of Change Theory

According to transtheoretical models of change, that is, models that involve stages, people pass through a predictable process as they move from acceptance to maintenance.¹⁰ The “Stages of Change” perspective has been useful to explain how individuals change a wide range of problem behaviors, from smoking cessation to exercise acquisition to condom use.^{11,12} There are five stages of change: precontemplation (uninterested in change); contemplation (considering change); preparation (committed to change); action (implementing change); and maintenance (preserving change). The importance of this model lies in the fact that strategies and activities to promote change differ significantly across stages. Individuals in different stages

utilize different processes of change.¹³ Stage status is also useful in predicting how close a person is to behavior change and how much effort is required of them and the intervention to move them to action. Such a perspective is useful in structuring tailored interventions to target at-risk populations.¹⁴ Measures of readiness to change dental behaviors have been developed and validated.^{15,16}

Patients at the initial “precontemplative” stage do not see their behavior as a problem and have no intention of changing their behavior. They are unknowing, unable, or unwilling to acknowledge that a problem exists. There is no reason to act. This same observation can be made about dentists who do not take prevention seriously in their practice. Those at the “contemplative” stage are aware a problem exists but are ambivalent. They value the change but perceive obstacles to action. When properly motivated, patients will prepare to change by deciding how to make it happen. Once this is determined, the patient moves into action by actually implementing the change. After action, there is concern over maintaining the new behaviors and avoiding relapse.³

Strategies to move from the precontemplative to the contemplative stage involve helping the patient, parent, or guardian feel the need for healthy dentition or avoid the consequences of dental pathology — pain, embarrassment, tooth loss, etc. Strategies to move from contemplation to action involve identifying and overcoming obstacles. For example, Mrs. Lee has a 6-year-old son with a history of rampant caries and an 18-month-old baby. She said she felt terrible when she brought her child in for emergency care and learned that her son, then 3 years old, had serious dental problems requiring oral rehabilitation under general anesthesia. In the dental office, her baby has a bottle with milk in it. Mrs. Lee, when

questioned, admitted to putting the child to bed with the bottle. At what stage is she?

If Mrs. Lee tells you it is inevitable her kids will have dental problems, she is likely to be in the precontemplative stage. On the other hand, she may tell you that while she does not want her baby to have the dental problems her older child has, she nonetheless feels she cannot follow the recommendation to

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wean that child at 1 year, nor does she think she can put the baby to bed without a bottle. Inability to tolerate child upset and inconvenience are alluded to. She is likely to be at the contemplative stage.

The “Stages of Change” theory applies to practitioners and educators as well as patients. The theory is useful in understanding how individuals respond to or ignore innovations and change. Many dentists in practice behave as if traditional restorative treatment stops the caries process. Moreover, preventive activities are limited, brief, and carried out in a robotic fashion, resembling the reading of rights to a suspect before arresting him. Some dentists are overcome with skepticism, reporting that prevention just does not work. “Been there; done that.” These colleagues are at the precontemplative stage.

Contrast those dentists to our col-

leagues who *know* what they are doing is not working. Such colleagues frequently report that insurance does not pay for effective prevention or that effect prevention takes too much time to be practical. These colleagues are at the contemplative stage.

Dental school faculty and administrators may also be at different stages. Most dental schools are focused on training their students to develop surgical skills. The vast majority of clinical instruction is dedicated to basic surgical proficiency. Many faculty and administrators see time away from the development of these skills to be counterproductive. They are at the precontemplative stage. On the other hand, there are those who are aware that students who graduate from their dental schools do not have the basic behavioral competencies needed to control caries in high-risk populations. While students may have taken a short course in communications skills and cultural competency as a freshman, there is awareness of the inadequacies of dental education. Given the obstacles in altering the curriculum, such individuals are at the contemplative stage.

Motivational Interviewing

While the “Stages of Change” theory provides understanding of the process of change and overall strategies, “motivational interviewing,” a brief counseling approach that focuses on skills needed to motivate others, provides tactics to move patients from inaction to action.¹⁷ This approach has been successful in eliminating addictive behaviors and has been used to establish positive health-related behaviors.¹⁸ Weinstein, Harrison, and Benton reported a study of 240 high-risk infants aged 6- to 18-months-old and their parents.^{19,20} They were randomly assigned to motivational interviewing or

traditional health education groups. Lay women were trained to conduct the intervention, which consisted of a counseling session and follow-up telephone calls. After two years there was a 50 percent reduction in the incidence of caries in the motivational interviewing group.

The motivational interviewing approach allows exploration of a problem in a supportive environment that expresses acceptance and provides affirmations of the person's strengths. It involves asking questions before providing information and advice. Individuals are encouraged to talk and there is an attempt to understand their frame of reference. These techniques are borrowed from nondirective patient-centered therapy. However, the approach is directive, advice is given, with the person's permission, and is accompanied with encouragement to make choices.

There are two phases to motivational interviewing; the patient is active in both. First, there is an attempt to establish rapport and trust and to help identify the problem of concern. During this phase the patient moves from the precontemplative to the contemplative stage. The goals are achieved primarily by asking open-ended questions and demonstrating the listener has heard the person by paraphrasing or summarizing (active listening). For example, in the protocol with the parents of 6- to 18-month-old high-risk children, parents were asked to report "What is it like to be Timmy's mom?" The next question focused on oral health. "Tell me about your dental health and the health of your family?" This was followed by "What do you want for Timmy's dental health," or "If I could grant you one wish for Timmy's teeth, what would it be?" The last question "sets the hook"; the parent is now telling us what she desires for the oral health of her child.

The second phase involves moving

from the contemplative to the preparation/action stage. The person is asked to weigh the pros and cons of changing. "What are the costs, the benefits of changing? What happens if you do nothing?" Choice is emphasized and there is brief discussion of the potential obstacles to action for each action option. Working with the person focuses mainly on identifying a plan to act. "Menus" of

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potential changes are used in even briefer versions of motivational interviewing. Such menus are appropriate with multifactorial diseases like caries. A motivational interviewing training manual for dental health care workers is available.²¹

Additional Approaches

There are additional theories that explain behavior change and interpersonal influence in psychology including behavioral models of reinforcement, social psychology's experimental findings, emphasis on acceptance and listening skills, family system views on group homeostasis, cognitive methods to change thinking, and hypnotic influence. These may be used in conjunction with or independent of motivational interviewing. A distillation of the best and most appropriate lessons from those theories would include the following

recommendations for dentists and their auxiliaries interested in CAMBRA success:

1. Take time to listen to patients. Let them tell their story and explain what they think of their teeth and their role in the maintenance of their oral health. Make sure you understand their point of view before you try to influence them.

2. Find out whether patients have distorted, incorrect, or irrational views of dentistry and oral health. Gently correct those views, beginning with the normalizing comment that "many people feel the way that you do."

3. Provide *reasons* for the prevention activities that you recommend. Patients are more likely to follow through with home care if they understand "why" they are doing what they are asked to do.

4. Teach and demonstrate what you want patients to do. Actively teach hygiene methods and get patients to demonstrate how to brush and floss while they are in the dentist's office. Show pictures and videos of the techniques you recommend. Many patients prefer to have good hygiene habits and skills, but they simply do not know correct techniques — or worse, the techniques they apply are inadequate or harmful.

5. Conduct a "functional analysis" to determine what factors in a patient's life are likely to increase likelihood of enhanced prevention activities and which factors might get in the way.

6. Explore your patient's reinforcement structure. Behavior is a function of its consequences. A desired behavior followed by something pleasant is likely to be repeated. Analyze the contingencies of reinforcement to ensure that desired prevention behaviors are appropriately rewarded. This, of course, means that dentists must note positive changes, even small ones, and comment on them ("you are doing a good job in

the front on the left side”). Dentists can help patients set up explicit reward structures to reinforce the behavior they want to increase at home.

7. Explore the involvement of the patient’s entire family in the CAMBRA process. It is more likely that a patient will make a behavior change if the whole family participates.

8. Use hypnotic language and indirect suggestion to influence patients. Tell stories about successful cases and patients. Employ vivid images of healthy and unhealthy situations to make your points (“pus” versus “nice fresh teeth and breath”).²²

9. Help patients set small, reasonable goals. Meet those goals, reinforce the progress, and set new ones. Engage patients often. Twice-a-year appointments are unlikely to be very influential.

10. Consider making appropriate treatment “deals” with patients. Agree to provide services they desire in alignment with a set schedule of oral health improvement. “We can put those veneers on as soon as you bring your decay-causing bacteria level down to a 2.” or “Reduce those pockets to 4 millimeters and I’ll start the preparation for the crown you need.”

11. Above all, dentists and their auxiliaries must truly care about prevention and the hygiene behaviors of patients. Their interest in prevention of disease must be obvious to staff and patients if they hope to positively influence them. This is a wonderful role for hygienists and assistants as well as the dentist.

Conclusion

Different people have different motivations that determine their behavior. This paper described numerous theories and approaches that can be used to positively influence the behavior of patients and dental health care workers so

they actively engage the CAMBRA process. It is important for dentists to establish which option works best with each of the employees in his/her office, and for the dental care team to do the same with each patient in the practice. ■■■■

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