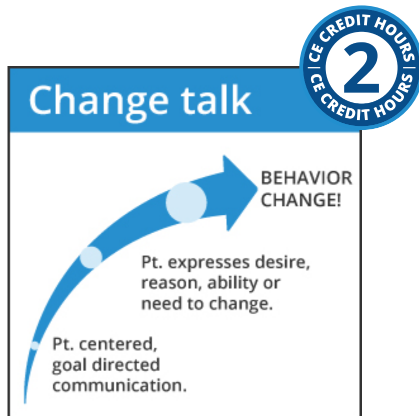
Motivational Interviewing: A Patient-Centered Approach to Elicit Positive Behavior Change



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- Drs. Bray and Williams have done consulting and speaking for Procter & Gamble and have no relevant financial relationships to disclose.

Short Description – Anomalies of Tooth Structure
This free continuing education course reviews the fundamental principles of Motivational Interviewing (MI), a person-centered, goal-directed method of communication for eliciting and strengthening intrinsic motivation for positive change.

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Overview

This continuing education course reviews the empirical evidence and fundamental principles of Motivational Interviewing (MI), a person-centered, goal-directed method of communication for eliciting and strengthening intrinsic motivation for positive change. The Spirit, Guiding Principles and Strategies, true to the method of Miller and Rollnick, are presented and then illustrated in two clinical case scenario videos.

Learning Objectives

Upon completion of this course, the dental professional should be able to:

- Describe the roles of ambivalence and patient engagement in health behavior change.
- Describe the primary differences between traditional patient education and a patient-centered approach aimed at behavior change.
- Identify which clinical cases show positive responses from brief motivational interviewing (MI) in oral health.
- Describe the fundamental spirit, guiding principles and strategies of Brief MI.
- Recall the basic strategies of brief MI skills as demonstrated in the video segments.

Introduction

Current evidence of the importance of oral health to overall health is irrefutable. Epidemiologic and, clinical studies, emphasize the critical importance of oral health to systemic health. The multifactorial inflammatory connection between oral and systemic health include predisposing and precipitating factors, such as genetic factors (gene polymorphisms), environmental factors (stress, habits—such as smoking and high-fat diets/consumption of highly processed foods), medications, microbial dysbiosis and bacteremias/viremias/microbemias, and an altered host immune response. Thus, in a susceptible host, these predisposing and precipitating factors trigger the onset of periodontal disease and systemic disease/conditions.[1]

Successful treatment of these multifactorial conditions also requires behavioral modification, Behavioral interventions educate or instruct individuals about good oral health and disease management practices or how to handle psychological and social challenges that impact their oral health behavior. MI is a method of counseling designed to increase patient motivation for behavior change through use of a compassionate, collaborative, and autonomy supportive style.[6] A number of meta-analyses indicate MI is significantly (10–20%) more effective than no treatment and generally equal to other viable treatments for a wide variety of problems ranging from substance use (alcohol, marijuana, tobacco, and other drugs) to reducing risky behaviors and increasing client engagement in treatment.

Examples include: a) motivational interviewing with mothers to prevent early childhood caries[2,3] or b) the 5A's (ask, advice, assess, assist, arrange) in routine dental care to increase tobacco quit rates[4]; and c) dental office-based weight control interventions for children and adolescents to reduce dental caries and prevent obesity-related systemic diseases (e.g., diabetes) that negatively impact oral health.[5] A number of meta-analyses indicate high fidelity MI is significantly (10–20%) more effective than no treatment and generally equal to other viable treatments for a wide variety of problems ranging from substance use (alcohol, marijuana, tobacco, and other drugs) to reducing risky behaviors and increasing client engagement in treatment.

Motivational interviewing is a person centered communication style used by many primary healthcare providers. The fundamental elements of Motivational Interviewing (MI), a collaborative conversational style for strengthening a person's own motivation and commitment to change.[6] Guiding the patient's internal motivation increases the likelihood his or her indecision (ambivalence) about personal behaviors will be resolved in the direction of change. The four key principles of MI are partnership, evocation, compassion and acceptance. Chronic dental diseases are largely preventable **if** patients perform self-care strategies for improved oral health, obtain successful treatment outcomes and comply with routine maintenance. As such, success in largely dependent on patient engagement. Working with patients can be discouraging for dental hygienists especially when patients, despite our "best efforts," fail to adopt improved oral health behaviors based on our professional advice and recommendations. Traditionally, patient education involved providing "knowledge," with the clinician having the expertise to set goals for the patient that were clinician-centered, not patient-centered. Patients not interested in changing behaviors may react by tuning out the clinician or may even become defensive.[6,9] Even in the best case scenario, research has shown that adherence to health providers' recommendations tends to be low; 30-60% of information provided in the clinician/patient encounter is forgotten within an hour of the encounter.[10] Moreover, DiMatteo showed that 50% of health recommendations are not followed by patients.[11] He also concluded adherence to healthy behaviors is equally as important in achieving positive outcomes as effective treatments. Improved adherence to professional recommendations has been demonstrated when knowledge and advice are combined with behavioral strategies. When patients are not ready for behavior change, the aforementioned health education advice or overt persuasion fails to motivate and can actually create resistance. It is no surprise that, despite our best efforts, many patients fail to change behaviors contributing to disease progression. In addition, when defensiveness develops between clinician and patient, patients may avoid returning for timely professional treatment which can add to the burden of disease.

Glossary

affirm – To validate, confirm, or state positively the patient's interests or efforts.

change talk – The patient's expressions of desire, reason, ability or need to make a change in oral health behaviors.

collaborative – The clinician and patient working jointly to identify and achieve behavior change.

develop discrepancy – The clinician uncovers any perceived inconsistencies among the patient's health status, behaviors and values, to create an internal tension and provide a rationale for change.

elicit-provide-elicit – An approach the clinician uses to ask, listen and inform that encourages patients to talk about and hear their intrinsic motivation for change.

express empathy – The clinician asks questions and actively listens to patient's responses to indicate understanding and sensitivity to patient's desires and feelings.

open-ended questions – Questions requiring more than a yes/no or short-answer response.

patient-centered – An approach that focuses on the patient's needs, desires and internal motivations rather than the clinician's goals.

reflective listening – The clinician reflects back what he/she perceives the patient has communicated.

rolling with resistance – The clinician acknowledges the patient's resistance to change rather than continuing to push forward.

self-efficacy/autonomy – The patient's self-directing ownership of behavior change.

summarize – The clinician recaps what the patient has said.

Traditional Patient Education

Patient education in the dental environment is typically clinician-centered and prescriptive in nature. Clinicians provide educational messages and direct advice using a unidirectional form of communication to persuade patients to comply with professional recommendations. This puts the patient in the position of either passively accepting or, alternatively resisting the often unsolicited advice. Factors important to the patient associated with change (autonomy, intrinsic motivation, competence, connecting change with values and norms, perceived control, and readiness for change) are given, at best, secondary consideration. Patients may perceive the advice as judgmental and intrusive, setting up resistance to change.

Why a New Approach?

Classic Approaches to Oral Health Education and and Behavior Change	
Knowledge	If I tell them that their oral condition might affect their heart health, they will change.
Insight	If I show them that they have gingival inflammation, they will change.
Skill	If I teach them how, they will change.
Threats	If I make them feel bad or afraid, they will change.

Psychological theories are used to explain why some individuals engage in behaviors conducive to health, whereas others, despite knowing they have poor health fail to adopt healthier behaviors recommended by health care providers. Self Determination Theory (SDT) represents a broad contemporary theory of personality development and self-motivated behavior change.[12] The two main assumptions are based on an individual's need to grow and gain fulfillment through internal sources of motivation. SDT also focuses on how social and cultural factors facilitate or undermine people's sense of volition and initiative, in addition to their well-being and the quality of their performance. Conditions supporting the individual's experience of autonomy, competence, and relatedness are argued to foster the most volitional and high quality forms of motivation and engagement for activities, including enhanced performance, persistence, and creativity.[13] If the clinician does not clearly demonstrate relatedness, recognize the patient as an autonomous individual, they will fail to effectively engage the patient.[13]

MI and SDT both posit individuals have an innate tendency for personal growth towards psychological integration. Both MI and SDT are closely aligned on the human propensity for personal growth. MI in fact is described by Miller as a movement toward integration and cohesion when the client's beliefs, attitudes, and behaviors become consistent with the values core to their personal identity.[14] This is accomplished in MI when the client recognizes inconsistencies between a behavior and their core values and sense of self. SDT and MI also both convey support for clients, encourage exploration of the client's own reasons for change, and refrain from pressuring patients to change. SDT suggestions for specific behavioral strategies are also similar to MI including: eliciting and acknowledging client perspectives, supporting client choices, providing a rationale for advice given, providing a menu of effective options of change, minimizing control and judgement and exploring aspirations.[15]

Clinicians can play a pivotal role by helping patients uncover and verbalize how the individual views positive and negative aspects of improved oral health behaviors may allow them to explore factors that increase or decrease internal motivation. Internal motivation is needed for sustained health behavior change. When clinicians attempt to impose motivation (e.g., through direct persuasion or advice given from an expert source), patients often respond with a guilt-induced transient change or simply sustain the current behavior. People may also respond by subtly pushing back and becoming more resistant to change. It is only when behaviors are internally directed and valued by the patient that sustained changes are possible.

When healthy behaviors are sustained over time, better health outcomes are possible.

Originating in the addiction fields, many healthcare providers are now trained and using MI in primary care as well as dentistry. Bray and colleagues demonstrated that MI can be effectively learned and utilized by dental hygiene students.[18] The effectiveness of the MI approach for more lasting behavior change with consequent improvements in health outcomes has is documented in over 900 clinical trials and across a variety of health behaviors and providers. MI improves oral health outcomes related to brushing frequency,[19] plaque control,[20] periodontal outcomes,[26] dental caries and dental visits. One of the largest and most highly rated studies on MI and oral health consisted of a longitudinal study of children 0-5 years old and their caregivers.[12] At the 2 year follow-up, the group receiving MI had a significantly higher proportion of children brushing seven nights per week at bedtime compared to the traditional health education group 35.45% to 25.33% respectively. While a higher proportion of the MI group (61.2%) assured children were bushing 2 times a day compared to 56% in the health education the result was not statistically significant.

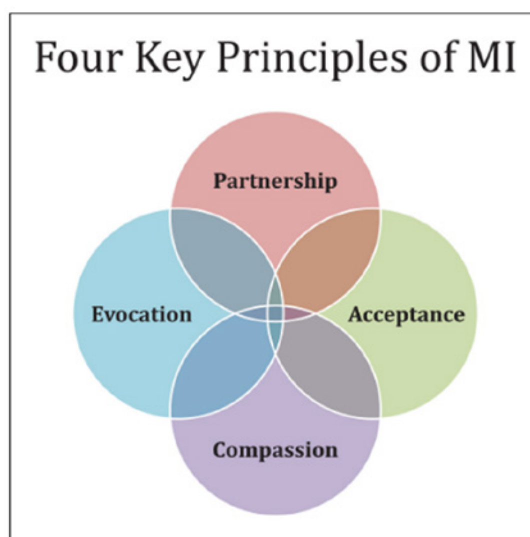
A recent systematic review of high fidelity MI and oral health examined the outcomes in 16 well designed studies. MI outperformed conventional health education in improving at least one outcome in four studies on preventing early childhood caries. With regard to periodontal health, superior effect of MI on oral hygiene was found in five trials and was absent in two trials.[27] It is worth noting that, among the five trials that showed a superior effect of MI, the follow-up period varied with some for 2 months except for two trials that followed the participants for >6 months. Questions remain regarding the validity of MI provided in oral health studies as oral health providers trained in MI are uncommon and the fidelity of the delivery is often omitted.

Additionally, for some patients, multiple sessions of MI might be necessary for behavior change to occur. The concept of the potential dose-response of MI for behavior change was further supported by a recent meta-analysis.[24]

Motivational Interviewing

> ***Motivational Interviewing (MI)*** is a person-centered, goal directed method of communication for eliciting and strengthening intrinsic motivation for change.[6]

MI is a well-accepted strategy for behavior change consistent with contemporary theories of behavior change. The spirit of MI is defined by partnership, evocation compassion and acceptance exhibited through specific techniques and strategies. Through experience, Miller found the likelihood for positive change occurred more readily when the clinician connected the change with what was valued by the patient. He also found confrontational styles or direct persuasion are likely to increase resistance and should be avoided. MI is based on a theory that motivation is necessary for change to occur, resides within the individual and is achievable by eliciting personal values/desires and ability to change. It is based on allowing the patient to interpret and integrate health and behavior change information if perceived as relevant to his/her own situation. It acknowledges the patient is the expert in their own life. MI appears to be most effective for patients with low motivation to change behaviors as it encourages trust between clinician and patient and allows the clinician to focus on gauging readiness for behavior change.



Components of MI

This review of MI principles will focus on how this approach might be used to elicit oral health behavior change within the dental counseling atmosphere. The foundation for MI rests not in the specific strategies of patient engagement but on a sincere "spirit" of mutual respect and collaboration. The clinician must abandon the impulse to solve the patient's problems (formerly referred to as the "righting reflex") and allow the patient to articulate his or her own solutions.

Using the guiding principles of MI, the clinician follows the patient's cues and moves between listening, asking, listening and informing. While these principles have been refined over the years these components resonsate well in healthcare. A collaborative exploration is accomplished through 4 key principles of MI. Use of these principles enables the patient to express his or her view of benefits and drawbacks associated with a particular behavior pattern and determine what action, if any, to take. Ultimately the decision resides within the patient, not the clinician. In this sense, the clinician allows the patient to have complete autonomy in the decision making process.

The four key principles for use of MI in healthcare are: resisting the righting reflex, understanding your patient's motivation, listening to your patient and empowering your patient.

Four General Principles of MI (RULE)

1. **Resisting the righting reflex.** Avoid a prescriptive provider-centered style of solving patient's problems for them. **Guide** them in eliciting their own solutions.
2. **Understanding your patient's motivation** between current behavior and important goals or values.
3. **Listening to your patient** through acceptance, affirmation, open-ended questions and reflective listening.
4. **Empower your patient** by support, self-efficacy and optimism.

In the traditional clinician-patient encounter, the clinician assumes responsibility for providing information and coming up with a solution to the patient's problems. Unfortunately, this prevents meaningful two-way communication. Research has shown the average health care provider interrupts a patient disclosure within 18 seconds, thus sending a non-verbal message that the patients' input is neither respected nor relevant. When clinicians affirm the patient's interest or efforts, a trusting relationship is supported. Once trust is established the patient can openly express him/herself and begin to resolve their ambivalence about change. When the patient expresses resistance to change or adopting a new behavior, the clinician acknowledges the resistance rather than continues to push forward. This is an ideal opportunity to explore the patient's viewpoint and need for autonomy. Moreover, it non-verbally conveys that the patient is central to any behavior change. A simple comment of "Okay, it sounds like you aren't quite ready to ________. Is it okay if we come back to this conversation at some point in the future?" demonstrates the clinician hears the patient and acknowledges their autonomy. Again, this patient-centered approach allows for collaborative solutions consistent with where the patient is at, at that point in time.

The second key principle is understanding your patient's motivations. Any perceived inconsistency between the patients' current health status, behaviors and values creates an internal tension that may provide a rationale for change. If time is limited, the best alternative is to asking patients why they might desire a change and how they might accomplish it instead of relying on telling the patient what they should do.

A third key principle is listening to your patient. When the clinician actively listens to the patient's response, they infer an expression of empathy and acceptance. Active or Reflective listening, goes beyond just keeping quiet while the patient responds. Reflecting back what the clinician perceives the patient has communicated allows the clinician to "get it right." Good listening and reflection is a complex skill explored further in MI strategies.

Lastly, it should be obvious the clinicians' behavior and engagement strategies are aimed at empowering your patient. By doing so, the clinician is signaling to the patient the clinician believes he/she is capable of change. Since it is the patient, not the clinician, who must initiate behavior change; supporting self-efficacy effectively shifts "ownership" of the solution to the patient. In the language of Self-Determination Theory, supporting self-efficacy can increase the persons' sense of competence and increase the likelihood of successful change.

The key components of brief MI which can be applied for the delivery of oral health information and advice are: Ask Permission, Elicit-Provide-Elicit (using OARS), Explore Options and Affirm Commitment.

Ask Permission

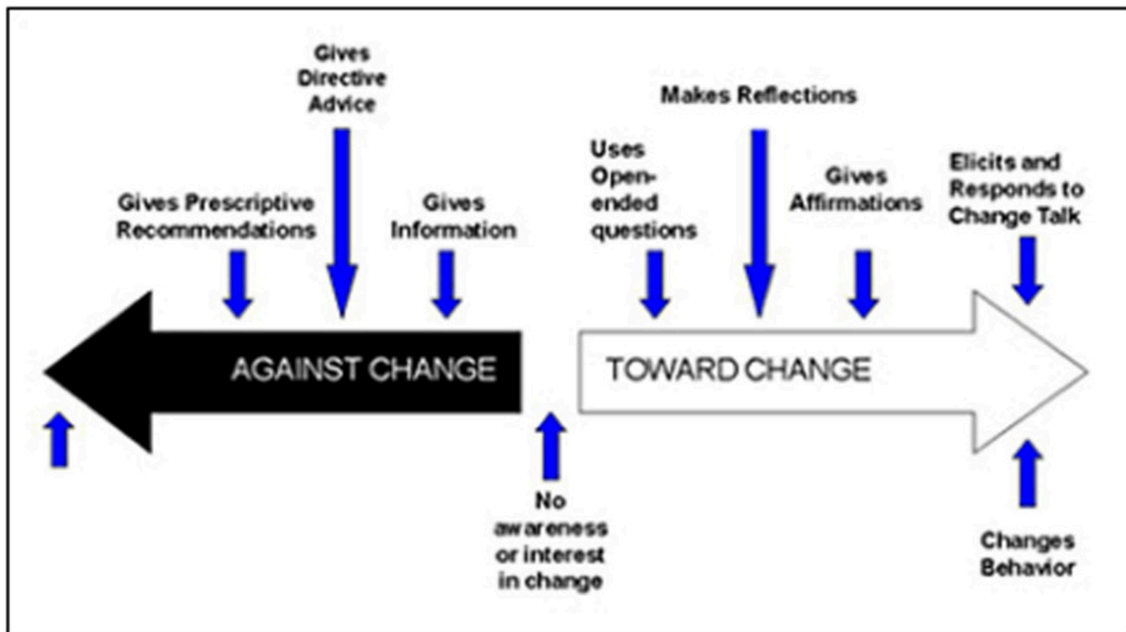
Soliciting the patient's permission to share information sets the collaborative spirit of MI right from the start and provides the patient with the autonomy to accept or decline the offer.

> **MI Strategies**
> **Get Permission: "*May I ask you a few questions about your current oral hygiene habits so I can understand your situation better?*"**

Elicit-Provide-Elicit (Asking, Listening, Informing)

Using the three communication skills discussed previously (open-ended questions, reflection and affirmation) allows the patient to begin talking about and hearing their own intrinsic motivation for change. This also sets up the opportunity to use the Elicit-Provide-Elicit strategy to guide the patient towards real solutions. As demonstrated in this video segment, begin by asking the patient what they already know or are interested in learning about a specific oral health topic. "What do you know about the risks associated with diabetes and gum disease?" This simple opening respects the patient's autonomy and knowledge, not to mention avoids re-telling them something they already know. The practitioner then provides only the information the patient desires, and does so after the patient selects from a list of options only the information they are interested in learning about.

The Elicit-Provide-Elicit approach continues through the use of evocative questions, affirmations, complex reflections and summaries (Table 2). Open-ended questions requiring more than a yes or no answer stimulates the patient to do most of the talking. A pivotal aspect of MI is an active reflective listening process. The clinician assumes the role of an active listener reflecting back what the patient has said. Reflective listening is an important and challenging skill to develop.



Skillful reflections extend the dialog or make an attempt at deciphering the unspoken meaning. They also serve as an ongoing chance to express empathy.

The ruler is an MI change talk strategy often used to further explore an understanding of patient motivation, importance and readiness for a behavior change. "On a scale of 1 to 10 with 10 being completely motivated and 1 having no motivation at all, how motivated are you to _____?" When the patient identifies their self-rated motivation, the clinician can further clarify by asking "What gives you this level of motivation" and "What would it take for you to increase your motivation 2 or 3 additional levels?" This approach can also be used to explore their level of importance as well as confidence in engaging in a new behavior.

Healthcare providers often have a strong desire to share information or prescribe a solution to solve the patient's problem. Advice giving is common among the helping professions and is referred to, as mentioned previously, as the "righting reflex." Information given in a unidirectional fashion is to be avoided as it often increases resistance, thereby decreasing the probability of behavior change. With MI, information is provided when requested by the patient or with the patient's approval. In this process, the patient "hears themselves" talking about and reflecting on their own behaviors and motivation for change. Hearing themselves discuss the importance and/or confidence often results in a previously unexplored self-awareness and is referred to as change talk.

Change Talk is an important aspect of MI strategies. Change talk is the patients' expressions of desire, reason, ability or need to make a change in their oral health behaviors. Change talk explains how MI works. Change talk explains how MI works. Neuroimaging demonstrates that change talk processing occurs in the same parts of the brain consistent with self-perception and intentions.[29] Research shows change talk accounts for 30% of the variance in behavior change.[30] This indicates elicit change talk from patients is really important to achieve behavior change. Expressions of change talk may come naturally as a result of open-ended questions and reflections or can be further elicited through the use of directed questions.

Directed questions to elicit change talk

- Why would you want to make this change?
- If you did decide to make this change, how might you go about it in order to succeed?
- What are the three best reasons for you to do it?
- How important would you say it is for you to make this change, on a scale from 0 to 10, where 0 is not at all important, and 10 is extremely important?
- [Follow-up question: *And why are you at ____ rather than a lower number of 0?*]

Summarize then ask one final question:
So what do you think you'll do?

Response to change talk provides the opportunity to explore options and affirm a commitment to change. When patients express positive reasons for changing health behaviors and realistically evaluate their likelihood of success, this can make the change seem or appear achievable and worthwhile. Finally, the patients' change talk can be reflected back to assist the patient in generating options and goal setting.

Clinical Case 1: James

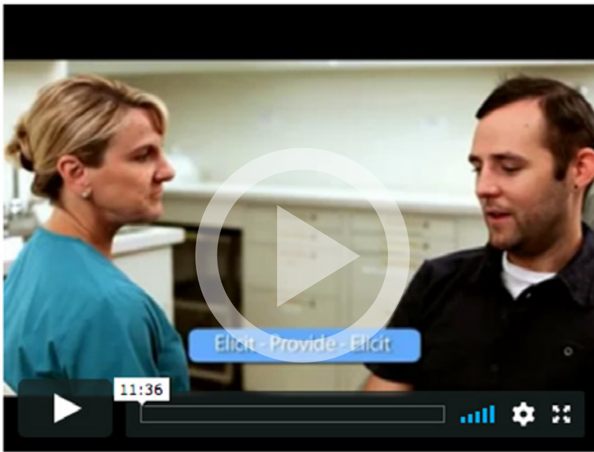
Perhaps this scenario is familiar. James is a 33-year-old male with persistent gingivitis. He however is unaware of any oral problems. At his most recent recall appointment it is evident little has changed in his oral hygiene effectiveness. This video contrasts the clinician-centered, advice giving approach to the patient-centered, MI approach discussed previously. In the first segment, the clinician does ask questions, listens and informs; however the tone is much more judgmental and adversarial. The clinician is prescribing or telling the patient what to do. Notice the patient's non-verbal response to the traditional approach. He looks away and loses eye contact with the provider. Comparatively, in the second segment the clinician again asks questions but the listening is more active with reflection of what the patient has revealed. As the dialog continues, notice the interchange moves between reflective listening – informing - providing options. Also note the increased level of patient engagement, not only in the increased eye contact but also in the duration or amount of time the patient talks during the conversation.

Clinical Case 2: Teresa

This video segment explores how brief MI can be used to communicate health risks and health behavior change to improve oral health outcomes for a patient with Diabetes. As expected, the clinical response and healing after quadrant scaling and root planing in this patient with poor glycemic control is impaired. Teresa is clearly marginalized upon being told once again that she has failed to adequately manage her diabetes as clearly demonstrated by the disenfranchised look on Teresa's face. During the MI segment a very effective change talk strategy referred to as the Motivational ruler is employed. The use of the ruler allows the clinician to affirm the patient's current level of importance, confidence and/or motivation to make a change - thus acknowledging their autonomy and responsibility for their own health. The use of the motivational ruler averts resistance, engages and provides an opportunity to explore options for change.

Summary

Clinicians need to recognize they are not the best judge of what is important to patients in order to become effective change advocates in the dental hygiene environment. Weinstein, et al, recently found when patient values and dentist perceptions were examined, the dentists' perceptions were not closely matched to patient values.[11] Extensive literature clearly demonstrates that values/beliefs, perceived susceptibility, social and family norms, cultural differences, lifestyle values and current perceived needs are important factors in motivation.



Video: Clinical Case 1: James
Click on image to view video online.

Video: Clinical Case 2: Teresa
Click on image to view video online.

Elicit	Provide	Elicit
The patient's readiness/interest in hearing the information/instruction.	**Solicited information or advice in as neutral fashion as possible.**	**The patient's reaction to the information/instruction provided.**
What do you know about how long you should brush?	The data show us that patients do have a natural tendency to overestimate their brushing time.	Could this be true in your case?
There is another option that might help you increase your actual brushing time. Would you be interested in hearing about it?	Some electric toothbrushes have a timing device to help ensure you brush for two minutes.	Is that something you think you might like to use at home?

Course Test Preview

To receive Continuing Education credit for this course, you must complete the online test. Please go to: *www.dentalcare.com/en-us/ce-courses/ce381/start-test*

1. A collaborative, person-centered approach to communication aimed at eliciting and strengthening motivation for change is known as ____________.

A. active listening
B. clear and direct communication
C. motivational interviewing
D. learning ladder

2. Which of the following is not a part of the four key principles of motivational interviewing?

A. resist the righting reflex
B. listen to your patient
C. design goals for patient
D. empower your patient

3. What is the first thing you should do prior to sharing information with a patient?

A. provide background knowledge
B. ask permission
C. remove personal protective mask
D. remind patient that you are the authority

4. Ambivalence refers to ____________.

A. simultaneous and contradictory feelings about something
B. the state of readiness for change
C. a strong conviction about something
D. understanding without confusion or uncertainty

5. There is empirical evidence that the skillful use of MI ____________.

A. can be learned by dentists and dental hygienists
B. can reduce plaque and improves gingival health
C. enhances internal motivation for regular brushing
D. only B and C
E. All of the above.

6. The acquired or innate tendency for health professionals to "fix" a patient's problems by offering prescriptive advice is referred to as __________.

A. OARS
B. ambivalence
C. evocation
D. righting reflex

7. All of the following are examples of open-ended questions except one. Which is the exception?

A. "Can you tell me about your normal oral home care routine?"
B. "What concerns you most about your oral condition?"
C. "Are you satisfied with the information provided you today?"
D. "How do you think this is affecting your overall health?"

8. Which of the following best represents the goal of reflective listening?
A. repeating what the patient says
B. informing using directive advice
C. keeping the patient talking
D. warning the patient

9. The statement, "You're very determined, even in the face of discouragement. This change must really be important to you." is an example of ____________.
A. an open-ended question
B. a reflection
C. affirmation
D. change talk

10. Which of the following can be used to elicit the extent to which a person feels compelled to change?
A. motivational ruler
B. expressing empathy
C. righting reflex
D. rolling with resistance

11. "Resisting the righting reflex" means the clinician __________ resistance expressed by the patient.
A. minimizes
B. acknowledges
C. tries to resolve
D. ignores

12. Traditional patient education ____________.
A. is clinician-centered
B. often causes the patient to passively accept, or resist, unsolicited advice
C. attempts to persuade patients to change behaviors
D. All of the above.

13. The clinician will increase the likelihood of engaging patients if he/she clearly demonstrates respect for patients and recognizes they are autonomous individuals.
A. True
B. False

14. The foundation of MI is built on ____________.
A. specific strategies the clinician teaches to the patient
B. a sincere "spirit" of mutual respect and collaboration between the clinician and patient
C. clinicians solving problems for patients
D. patients' fear of losing their teeth

15. Research has shown the average health care provider __________ a patient disclosure.
A. quickly interrupts
B. listens intently to
C. documents
D. None of the above.

16. In the first case scenario when the clinician uses the MI approach with James, his increased engagement is indicated by ____________.

A. increased eye contact
B. looking away
C. increased conversation
D. A and C

17. MI has been shown to positively affect health behavior change related to:

A. smoking
B. diabetes management
C. oral health
D. All of the above.

18. The second case scenario with Teresa shows how MI can be used to elicit positive change in patients with:

A. diabetes and poor glycemic control
B. xerostomia
C. oral piercings and poor oral hygiene
D. rampant caries

19. A patient's verbal expression of their desire, reason, ability or need to make a change in oral health behaviors is referred to as:

A. motivational ruler
B. empathy
C. change talk
D. resistance

20. When motivation is imposed from an external source (e.g., persuasion), patients' behavior change is often ____________.

A. sustained over time
B. transient and guilt-induced
C. successful
D. None of the above.

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