

Motivational Interviewing in Periodontics : A Review of Literature

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Abstract

With the increase in understanding about the role patient motivation and compliance has on the periodontal treatment outcome, various methods have been tried to improve it. Motivational Interviewing is one such technique which was initially introduced in the field of counseling to help quit alcohol addiction. It was met with a lot of success in general counseling, so the principles of Motivational Interviewing are now being tried and applied to improve compliance in dentistry as a whole and periodontics in particular. This article provides an insight into the principles and applications of motivational interviewing. It also reviews the research being carried out in relation to proving its efficacy in the dental set up.

Keywords: Motivational Interviewing, Dentistry, Periodontics, Counseling, Periodontal Treatment.

Introduction

Periodontitis is seen to affect a large population with the World Health Organization (WHO reporting that 10-15% of the world's population suffer from severe periodontitis.¹ Periodontal investigation has made it clear that the primary etiological factor for periodontitis is dental plaque, so the main focus of treatment has been on the primary etiologic factor that is bacteria. Both the non-surgical and surgical treatment approaches mainly focus on that. It has however been realized that other factors like inadequate oral hygiene, tobacco use, and uncontrolled diet in type 2 diabetes mellitus, have a destructive impact on periodontal tissues.²

Oral hygiene and cleanliness is important for the preservation of oral health as it removes microbial plaque, preventing it from accumulating on teeth and gingiva. In light of the results of comprehensive literature review and critical analysis, it is evident that mechanical oral hygiene plays an important part in the prevention and treatment of periodontal disease.³

It has also been well established that, smoking has an adverse effect on the health of the periodontium as well as on the treatment outcomes. A recent literature review by Ramseier it was showed second to plaque control, smoking cessation was the most important measure for the management of chronic periodontitis.²

Diabetes too has shown to play an important role in the occurrence and prognosis of periodontitis. Significantly more periodontal attachment loss and alveolar bone was lost in type 1 diabetic patients who had poor glycemic control than those who were well controlled or non-diabetic patients. It is hence important that non-diabetic patients control their glycemic levels in order to improve their general as well as periodontal health.⁴

Hence, it is extremely essential to counsel patients and improve their compliance with relation to conditions that might modify their treatment outcomes and overall oral health. The non-complying individuals have the highest risk of recurrent periodontitis even if they have completed the treatment plan. An important task is to find ways to reduce the frequency of non-compliance and thus improve the prognosis.⁵

In order to get reliably effective outcomes in periodontal care, it may be necessary to apply different behavior change counseling methods for each individual behavior. Aiming for simplicity, it may be preferable to apply one single method for behavior change counseling in periodontal care that is shown to be effective in both primary and secondary prevention of oral diseases. This method should be-

- Based on the best available evidence
- Applicable to oral hygiene behavior, tobacco use prevention and cessation, and dietary counseling
- Suitable for implementation by the dental practice team in a cost-effective way.²

Compliance, however is a very complex matter and findings from individual studies cannot be generalized.⁶ Certain patient groups have a higher risk of non-compliance and that clinicians should intensify their efforts in motivating and instructing these patient groups in the importance of supportive periodontal therapy.⁷

Noncompliance to periodontal maintenance cannot be solely explained by one determinant but rather may involve an individual's health beliefs, emotional intelligence, psychological stressors, and personality traits.⁸ So a patient centered approach would be most suitable when it comes to counseling patients for periodontal compliance.

A patient centered care has been associated with a more accurate recall of diagnosis and medical advice, increased symptom resolution, and improved pain control. From a humanistic perspective, a client centered or patient-centered orientation requires therapists to integrate three elements into their work to effect positive therapeutic effects: empathy, unconditional positive regard and genuineness.⁹

Motivational Interviewing & Its Principles

Motivational interviewing is one such counseling method which is patient centric. Motivational interviewing uses a patient-centered and directive approach that addresses the ambivalence and discrepancies between a person's current values and behaviors and their future goals.⁹

Motivational interviewing (MI) was originally developed for use in addiction counseling settings. The main goal of MI is to elicit and strengthen a patient's own motivation to change behavior.¹⁰

MI has been defined as "a client-centered,

directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence."

The four broad guiding principles that underlie Motivational Interviewing are Express empathy, Develop discrepancy, Roll with resistance, Support self-efficacy.¹¹

First, a practitioner should express empathy for the patient's behavior change dilemma. In other words, the practitioner should communicate acceptance of the patient's perspective, providing and expressing full acknowledgment of the patient's feelings and concerns. The second principle is to develop discrepancy between the patient's current behavior and how they would ideally like to behave to be consistent with their broader goals and values. For example, the goal of being strong or responsible, or a good spouse or parent, can often be linked to being healthy and suggest the need for improved health behaviors. The third principle is to roll with resistance. When patients argue against change there is a strong tendency to fall into the trap of providing counter arguments. As a result the patient expends all of their energy arguing against change which is precisely the opposite of what is desired, perhaps making them even less likely to change. MI practitioners therefore avoid arguing and instead use MI methods to "roll with resistance". The fourth principle is to support self-efficacy or the patient's confidence in their ability to make a change. Patients are unlikely to succeed in making a change even if they are motivated, when they don't know how or don't believe they can. MI practitioners therefore make efforts to enhance their patients' confidence through such means as expressing their belief in the patient's ability to change or pointing out past successes or steps in the right direction.²

The practice of Motivational Interviewing involves the skillful use of certain techniques for bringing to life the "Motivational Interviewing spirit", demonstrating the Motivational Interviewing principles, and guiding the process toward eliciting client change talk and commitment for change.

Change talk involves statements or non-verbal communications indicating the client may be considering the possibility of change.

OARS

Often called micro counseling skills, OARS is a brief way to remember the basic approach used in Motivational Interviewing. Open Ended Questions, Affirmations, Reflections, and Summaries are core counselor behaviors employed to move the process forward by establishing a therapeutic alliance and eliciting discussion about change.

Open-ended questions are those that are not easily answered with a "Yes/No" or short answer containing only a specific, limited



piece of information.

Open-ended questions invite elaboration and thinking more deeply about an issue.

Although closed questions have their place and are at times valuable (e.g. when collecting specific information in an assessment), open-ended questions create forward momentum used to help the client explore the reasons for and possibility of change.

Affirmations are statements that recognize client strengths. They assist in building rapport and in helping the client see themselves in a different, more positive light. To be effective they must be congruent and genuine.

The use of affirmations can help clients feel that change is possible even when previous efforts have been unsuccessful.

Affirmations often involve reframing behaviors or concerns as evidence of positive client qualities. Affirmations are a key element in facilitating the Motivational Interviewing principle of Supporting Self efficacy.

Reflections or reflective listening is perhaps the most crucial skill in Motivational Interviewing. It has two primary purposes. First is to bring to life the principle of Expressing Empathy. By careful listening and reflective responses, the client comes to feel that the counselor understands the issues from their perspective. Beyond this, strategic use of reflective listening is a core intervention toward guiding the client toward change, supporting the goal-directed aspect of Motivational Interviewing. In this use of reflections, the therapist guides the client towards resolving ambivalence by a focus on the negative aspects of the status quo and the positives of making change.

There are several levels of reflection ranging from simple to more complex. Different types of reflections are skillfully used as clients demonstrate different levels of readiness for change. For example, some types of reflections are more helpful when the client seems resistant and others more appropriate when the client offers statements more indicative of commitment to change.

Summaries are a special type of reflection where the therapist recaps what has occurred in all or part of a counseling session(s). Summaries communicate interest, understanding and call attention to important elements of the discussion. They may be used to shift attention or direction and prepare the client to "move on." Summaries can highlight both sides of a client's ambivalence about change and promote the development of discrepancy by strategically selecting what information should be included and what can be minimized or excluded.

Review of Motivational Interviewing in Dentistry & Periodontics

Motivational Interviewing has been found to be effective in treating a broad range of health-related lifestyle problems, such as substance abuse, diet disorder, lack of

physical exercise, and poor adherence to medication regimens. Despite the sizeable evidence collected in medical research, the potential of Motivational Interviewing in dental healthcare is understood to a much lesser extent. There have been randomized controlled trials which evaluated the effectiveness of Motivational Interviewing, in comparison with Conventional (health) education (CE), in changing oral health behaviors and improving oral health of dental patients and the public.¹²

Philip Weinstein and his team were among the first to try and use Motivational Interviewing in the dental set up. They conducted a study to compare the effect of a Motivational Interviewing counseling treatment with that of traditional health education on parents of young children at high risk of developing dental caries. They concluded that Motivational Interviewing is a promising approach that should receive further attention and Motivational Interviewing may lead parents and others to better accept dental recommendations about preventing caries in their children.^{13,14}

F. Almomani et al in 2009 carried out a study to test whether Motivational Interviewing enhances the efficacy of an oral health education intervention in individuals with severe mental illness. Sixty individuals were randomly assigned to Motivational Interviewing plus oral health education or oral health education alone. Plaque scores, oral health knowledge, and self-regulation were assessed at baseline and at 4 and 8 weeks. Results obtained suggested that Motivational Interviewing is effective for enhancing short-term oral health behavior change for people with severe mental illness and may be useful for the general population.¹⁵

Jonsson B. et al carried out studies in which they proved that that individually tailored oral health educational programme was efficacious in improving long-term adherence to oral hygiene in periodontal treatment. They also concluded that such an individually tailored oral health educational programme in combination with scaling is preferable to the Standard Treatment programme in non-surgical periodontal treatment.^{16,17}

Godard A, Dufour T, Jeanne S. (2011) studied the application of self-regulation theory and Motivational Interviewing for improving oral hygiene. The results obtained showed patients in the experimental group had a higher oral hygiene improvement one month post-treatment and it was concluded that the concept of Motivational Interview is a promising approach and can be useful for counseling-related periodontal disorders.¹⁸

In 2012, a study was published reviewing the cost-effectiveness of an individually tailored oral health educational programme based on cognitive behavioural strategies in non-surgical periodontal treatment. It concluded that the incremental costs per

"successful-NSPT" case can be considered as low and it strengthened the suggestion that an individually tailored oral health educational programme integrated into non-surgical periodontal treatment is preferable to a standardized education programme.¹⁹

Stenman J and his coworkers carried out a study with an aim to evaluate the effect of a single session of Motivational Interviewing (MI) on self-performed periodontal infection control and concluded that a single freestanding Motivational Interviewing session as a prelude to conventional periodontal treatment. They found no significant effect on the individuals' standard of self performed periodontal infection control in a short-term perspective.²⁰

Recently, Xiaoli Gao, Edward Chin Man Lo, Shirley Ching Ching Kot, Kevin Chi Wai Chan in 2013 reviewed 20 papers (on 16 studies) which evaluated the effectiveness of Motivational Interviewing, in comparison with conventional (health) education CE, in changing oral health behaviors and improving oral health of dental patients and the public. The review showed varied success of Motivational Interviewing in improving oral health. The potential of Motivational Interviewing in dental healthcare, especially on improving periodontal health, remains controversial. Further studies with methodological rigor are needed for a better understanding of the roles of Motivational Interviewing in dental practice.¹²

Way Forward

It has now been proven beyond doubt that each individual is quite different and that cognitive behavioral interventions have been found to be more effective than only information and oral hygiene instructions. Clinicians should distinguish between individuals who lack the motivation to change their oral hygiene behavior and those who are so motivated but require support in planning and maintaining behavior change.²¹ The individually tailored oral health education programme should include strategies that would fit naturally into the periodontal treatment protocol. The use of Motivational Interviewing in improving periodontal health is still not proven and remains controversial. Further large scale randomized controlled studies of Motivational Interviewing with methodological rigor will have to be carried out to obtain with more conclusive results. Studies also need to be carried out to see if this technique can be used more successfully in patients of a specific age group, gender, employment status, marital status, mental health status, initial expectations and readiness to change.

Even after considering the relative barriers in further studying and successfully applying Motivational Interviewing, these efforts seem to be justified and may serve not only as a public health benefit but also help to achieve the goal of periodontal health for all.

References

References are available on request at editor@healtalkht.com

