

## Motivational Interviewing and Oral Health: what the evidence says.

Beatriz Carriconde Colvara<sup>1</sup> & Daniel Demetrio Faustino-Silva.<sup>2,3</sup>

**Affiliations:** <sup>1</sup>Federal University of Rio Grande do Sul, Porto Alegre - RS, Brazil. <sup>2</sup>Community Health Service of Grupo Hospitalar Conceição (GHC), Rio Grande do Sul, Porto Alegre, Brazil. <sup>3</sup>Program for the Assessment and Production of Technologies for Brazilian Unified Health System, Grupo Hospitalar Conceição (GHC), Rio Grande do Sul, Porto Alegre, Brazil.

**Corresponding author:** Daniel Demetrio Faustino-Silva. Gerência de Ensino e Pesquisa. Avda. Francisco Trein, 596, 3º andar, Bloco H, sala 11 Porto Alegre –RS-CEP 91350-200. Phone: (55-51) 33572407. E-mail: ddemetrio@gmail.com

Motivational Interviewing is an approach to health that is almost the opposite of the traditional format applied by different health care professionals. In oral health, in particular, in which behavior is so decisive in the successful treatment of the most prevalent diseases, breaking the dominance of prescriptive, judgmental and counselling-based practices is paramount. We cannot restrict the advancement of current knowledge to the microbiological and technical levels of clinical practice; discussions must be extended to include how to promote healthcare and unsettle professionals secure in their authoritarian and hierarchical approach, paving the way for a line of thought that considers the relationships we establish with our patients.

Changing behaviors remains a significant challenge in dental practice. The most prevalent diseases in the field are closely linked to everyday behavior, such as personal hygiene, smoking and eating habits. Caries and periodontal disease are still largely responsible for tooth loss, especially in less developed and socioeconomically disadvantaged populations. Are clinical dentists prepared to accept their share of responsibility in the face of behavioral changes carried out or not by patients? We believe they should be. We also believe, as stated by Miller and Rolnick<sup>1</sup> (who developed MI), that professionals must be jointly responsible for creating this path and capable of providing support to ensure patients change their behavior themselves. Is dentistry equipped to establish this non-hierarchical, respectful and empathetic alliance with its patients? Are oral health professionals capable of talking about change?

MI has emerged in the field of dentistry as an alternative for professionals to consider different approaches to behavior change. Additionally, it favors a respectful and welcoming approach that is far more than a set of techniques, but rather a form of professional-patient interaction that breaks from the traditionally hierarchical and prescriptive approach, which is not centered on the patient.

The literature on the application of MI in dentistry is still scarce and heterogeneous, which is evident in the literature reviews published to date. Gao *et al.*<sup>2</sup> published the first literature review relating MI and oral health, which remains the broadest and most comprehensive to date. The quality of the 16 studies included – divided into 20 articles – was assessed on a 21-point scale and included an objective evaluation of topics that analyzed everything from how clearly the objective was defined to calculating losses. Nine studies obtained scores equal to or greater than 15. Seven evaluated periodontal outcomes, of which five found that the MI-based approach was more effective in improving at least one of the outcome measures. Four studies assessed the prevention of Early Childhood Caries, with one showing a significant decline in the number of carious lesions and the remainder exhibiting no significant results, despite suggesting that MI can reduce the severity of tooth decay both by decreasing the number of cavities and the extension of lesions. The remaining studies assessed smoking cessation, oral health prevention and drug and alcohol use, with different results in these five studies.

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In 2014, Cascaes *et al.*<sup>3</sup> published another literature review that included the nine of the sixteen studies from the review by Gao *et al.* and one new article. All the studies were conducted in high-income countries in North America and Europe. Their quality was assessed using a different method from that employed by Gao *et al.*, with scores ranging from 0 to 26; five studies obtained scores between 20 and 23 and were classified as good evidence. As predicted by the previously published literature review, the findings provide an optimistic perspective regarding the use of MI in oral health, though limited by a lack of consistency due to the heterogeneity of the studies.

Two reviews were published on the theme between late 2016 and early 2017. Kay *et al.*<sup>4</sup> conducted a systematic review to analyze evidence of the use of MI in oral health, while Kopp *et al.*<sup>5</sup> proposed a systematic review centered on outcomes of interest specific to periodontal health.

Despite its hopeful conclusion concerning the application of this approach in oral health, the results of the review by Kay *et al.*<sup>4</sup> are questionable in that it includes studies that do not use MI to change behavior and does not include randomized controlled trials (RCTs) which provide sound evidence on the topic. Of the eight articles in this review, only two use an MI-based approach and both were included in the review by Gao *et al.* in 2013,<sup>2</sup> thus not contributing new knowledge on the theme.

Kopp *et al.*<sup>5</sup> included five articles in their analysis, of which only one differed from those in the review by Gao *et al.*<sup>2</sup> All the

studies obtained a good quality assessment. Two articles showed no influence of MI on the clinical results of patients, while the other three demonstrated that the use of MI as an adjunct to periodontal treatment resulted in significantly higher clinical outcome values compared to controls or improvement in self-efficacy for dental hygiene. Though controversial, the findings of the remaining reviews are promising; however, more consistent studies are needed to corroborate the sound evidence in the field.

With respect to Early Childhood Caries, Albino *et al.*<sup>6</sup> conducted a well-designed systematic literature review to assess different behavioral approaches and concluded that MI was the most effective, with positive results in three of the four studies included. Additionally, they found that different studies are underway on the use of MI in oral health, specifically caries prevention and will produce greater evidence for future interventions.

It is not surprising that an approach that values decision making based on patients' intentions and involves a significant interpersonal context shows good results. The results of the reviews published to date do not differ significantly between them, and therefore additional good quality community RCTs are needed to provide data for future analyses through new systematic reviews and meta-analyses. This will ensure more concrete, homogeneous and accurate findings to justify or not the application of this approach. It is also important that studies be carried out in various areas and contexts to provide a different view of the effectiveness of MI in oral health in different populations, including Latin America.

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