

# The use of Motivational Interviewing in oral health interventions; overview

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**Objective:** Motivational Interviewing (MI), a counselling technique designed to stimulate a client's inner will to change, is based on four principles: empathy, developing discrepancy between current and an alternate behaviour, reinforcing self-efficacy and rolling with resistance to change. The most important component of MI is thought to be the MI 'spirit'. MI spirit is concerned with enhancing client collaboration as well a client's autonomy. Despite evidence of efficacy and increasing use of MI in a range of oral health settings, little attention has been paid to documenting the integrity of MI delivery (fidelity). In the first of four papers regarding challenges in testing fidelity in MI oral health interventions, we aim to provide an overview of MI-based oral health interventions. **Methods:** A literature search using a range of electronic data bases was performed using key words 'Motivational Interviewing' and 'oral health' or 'dental health' or 'dental disease'. A summary of the studies was collated, with key strengths and weaknesses noted. **Results:** A total of 42 publications resulted from the literature search. Of these, 22 included studies specifically relating to MI. Of these, nine studies mentioned fidelity. Of these, three used the Motivational Interviewing Treatment Integrity (MITI) code; the most recognised and reputable of MI fidelity assessment instruments. These publications did not reflect currently funded or conducted studies which may or may not include fidelity assessment of the MI intervention. **Conclusions:** There are an increasing number of studies using MI interventions in oral health research. However, few studies have assessed fidelity of MI-based interventions. There is a need to explore barriers to assessing fidelity in these interventions.

*Key words: Motivational Interviewing, oral health, dental health, dental disease*

## BACKGROUND

Consider this scenario. Mona, aged 22 years, is pregnant and has two children; Shana, aged three years and Jo, aged eleven months. Mona has visible caries. Shana is carrying a bottle with purple fluid in it; severe caries is apparent when she smiles. What do you do/recommend for the family?

Another scenario; as a practising dental clinician you have a new patient. This patient presents with Type 2 diabetes and periodontal disease. There is no previous history of periodontal treatment. The patient drinks alcohol and smokes tobacco. What do you say or do?

It is well recognised that health education (provider-centred care), including dental health education, does not change behaviour (Kay and Locker, 1996; Sabariego *et al.*, 2012). How well recommendations from health care providers work is dependent upon the complexity of the regimen (more complex, less cooperation) and the stage of change of individuals in regards to being prepared to change behaviour (Prochaska and Velicer, 1997). Most people faced with recommendations for behaviour change are not ready to take action (Schwartz *et al.*, 2011).

By way of contrast, the Institute of Medicine called for care that is 'safe, effective, patient-centred, timely, efficient and equitable' (IOM, 2001). 'Patient-centred care' was defined as "providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions."

At its heart, Motivational Interviewing (MI) can be considered the ultimate in 'patient-centred care'. The basic premises of MI are to build rapport and trust, uncover motivation,

problem-solve and to follow-up (Barnett *et al.*, 2012). Evidence has indicated that, conducted correctly, MI is brief but powerful (Mbuagbwe *et al.*, 2012), routinely taught in medical schools (Daepfen *et al.*, 2012) and some dental schools (Hinz *et al.*, 2010) and improves efforts of dental preventive practice (Jonsson *et al.*, 2010).

MI is based on the philosophy that change is more likely with internal motivation (Miller and Rollnick, 2012). The goal is to help a person make their own argument for change. It is a brief form of psychotherapy that aims to help patients identify, explore and resolve obstacles. Wanting to change but perceiving obstacles is considered both common and normal. Unlike other change theories, in MI, movement along the readiness-to-change continuum is considered an acceptable short-term outcome; with the understanding that motivation comes before action (Miller and Rose, 2009). The patient is also ultimately responsible and makes decisions. MI is not directionless, but advice that is given through the MI process is not premature, and certainly not before there is support, empathy and trust (Miller and Rose, 2009). Choice is strongly emphasised, typically through a series of menu options once a person indicates a desire for change (Moyers *et al.*, 2005). Continuity through follow-up is also essential; examples in the literature where MI has not been effective typically use a one-off MI session (Stenman *et al.*, 2012).

It is important to briefly discuss the MI spirit. There are three fundamental approaches, each of which has its own defining characteristics. These are: (1) Collaboration; tone emphasises partnership and respects an individual's unique perspective. The

aim is to create a non-judgmental and supportive environment conducive to self-exploration; (2) Evocation; the motivational interviewer facilitates a client's own exploration of behaviour change (for/against). The purpose of evocation is to elicit a client's intrinsic motivation and, if necessary, to resolve ambivalence; (3) Autonomy; accepting that responsibility for change resides within a client. The motivational interviewer respects a client's own decision-making process, with the client, not the person conducting the MI session, deciding on if, how and when change occurs (Miller and Rollnick, 2009).

Despite evidence of efficacy and increasing use of MI in a range of oral health settings, little attention has been paid to documenting the integrity of MI delivery (fidelity). We aim to provide an overview of MI-based oral health interventions in which an assessment of fidelity has been attempted.

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## METHODS

A search was conducted of the electronic database (Pubmed) literature for the years 2004 to 2013. Key words included 'motivational interviewing' and 'oral health' or 'dental health' or 'dental disease'. Studies were noted for key strengths and weaknesses, including fidelity assessment.

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## RESULTS

A total of 42 publications resulted from the literature search. Of these, 22 included studies specifically relating to MI. Of these, nine studies mentioned fidelity (Table 1). Of these, three used the Motivational Interviewing Treatment Integrity (MITI) code; the most recognised and reputable of MI fidelity assessment instruments (Moyers et al., 2005). These publications did not reflect currently funded or conducted studies which may or may not include fidelity assessment of the MI intervention.

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## CONCLUSION

There are an increasing number of studies using MI interventions in oral health research. However, few studies have assessed fidelity of MI-based interventions. There is an apparent need to explore barriers to assessing fidelity, which will be addressed in the following papers.

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Table 1. Published MI oral health studies with fidelity

Authors (Yr)	Topic	Subjects	MI Session(s)	Fidelity
Brand <i>et al</i> (2012)	Perio	56 perio patients	Single session	Audio recording
Cook <i>et al</i> (2012)	Oral hygiene	150 Head Start staff	-----	Used framework from NIH BCC; MISC
Neff <i>et al</i> (2012)	Alcohol	Heavy drinkers	Single session	Audio recording; examined MI elements
Ismail <i>et al</i> (2011)	Caries	1021 African-American	Single session	MITI
Jonsson, <i>et al</i> (2010)	Perio	113 subjects	Multiple sessions	Video recording
Croffoot <i>et al</i> (2010)	MI Skills	15 Dental hygiene	Single session	MITI and MISC
Almomani <i>et al</i> (2010)	Oral hygiene	60 severe mentally ill patients	Single session	Audio recording evaluated by MI expert
Harrison <i>et al</i> (2010)	Caries	272 pregnant women and Cree children	Multiple sessions	F/U with an MI expert
Severson <i>et al</i> (2009)	Smokeless tobacco	785 active duty military personnel	Multiple sessions	Audio recording evaluated by MI expert

NIH – Behavior Change Consortium – framework for enhancing treatment fidelity.