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Success with Motivational Interviewing Techniques in the Dental Clinic: a Case for the Use of iMI-GPS

Abstract: In this paper the origins and philosophy of Motivational Interviewing are described. Also, what the method seeks to do and the basic processes involved in delivering a consultation based on Motivational Interviewing principles are explained. Then research that has reviewed the evidence for the efficacy of the technique in dentistry is outlined, followed by a discussion of how the dental team can apply some of the tools used in Motivational Interviewing to deliver a structured, goal-directed behaviour change programme inspired by Motivational Interviewing and grounded in the principles of goal-setting, planning and self-monitoring.
CPD/Clinical Relevance: This paper discusses Motivational Interviewing techniques and how they might be adapted for the dental team.
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Motivational Interviewing (MI) is a patient-centred, but directive technique that aims to help people change their behaviour. The premise behind Motivational Interviewing (MI) as proposed by Miller and Rollnick is that there is very little in terms of behavioural outcomes, wishes and needs that people are entirely certain about.[1] For example, a patient might want a perfect smile, but he/she might not be too certain about taking on the cost or time requirements that achieving this smile would involve. A young adult might want perfectly straight teeth, but might be ambivalent about wearing the headgear as

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instructed by the orthodontist. Finally, an adult with periodontitis might wish that he/she was free from halitosis but might not be motivated to brush and clean interdentally twice a day. This ambivalence, or uncertainty, about change, which traditionally behavioural scientists tended to see as a problem in getting patients to change their behaviour, is at the heart of MI and is seen by its proposers as the key state behind the success of helping people to change. So the first paradox about MI is that it sees an ambivalence about change as a helpful and necessary part of the process.

MI is not a '*bag of tricks*' to '*get people to do what they should be doing*'. Rather, MI rests on some basic processes, all of which assume a patient-centred, *laissez faire* dentist–patient relationship. The first of these processes is the assumption of a collaborative relationship. The idea here is that the MI practitioner behaves in a way that is conducive towards and directive of change.

That is quite different from being coercive; for MI to succeed it is assumed that patients, at some level, want to go where the clinician wishes to take them rather than being unwilling partners in the exercise. With this in mind, the MI-practitioner inherently accepts that the change will take place at the patient's pace without a presumption that the patient lacks insight (which can be corrected through education, for example). Parallel to this process of collaborative change at the patient's pace is the idea that all the MI practitioner is there to do is to *prepare* people for change; this does not mean that the aim is, necessarily, to change people. So the second feature of MI is that it will only succeed where the patient wishes to embrace the change. MI will not make people, who are not in any way interested in changing their behaviour, suddenly change their position.

Given this background, Miller and Rollnick defined MI as '*a client-centred,*

	Good	Not so good
No Change	1	2
Change	4	3

Administer in order

1: Invites person's perspective on advantages of status quo
2: Makes ambivalence salient, starts *'Change Talk'*
3: Downside of change - (Fears? Confidence?)
4: Person's own argument for change

Figure 1. Developing discrepancy: the Decisional Balance Table.

directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence'[1] (p25).

MI in practice – the four main principles and some practical tools

Having outlined the basic tenets of MI as a technique, the four main principles that underline any MI consultation are:
1. Expressing empathy;
2. Developing discrepancy with the view of supporting *Change Talk*;
3. Rolling with resistance; and
4. Supporting self-efficacy.

1. Expressing empathy

Expressing empathy is not synonymous with agreement, approval or endorsement of the patient's circumstances. Rather, it is an understanding of where the person is in terms of behaviour change, an acceptance of the person's circumstances as valid and worthy of the practitioner's time, accompanied by respectful listening. For example, an empathic periodontist will accept that a patient with periodontal disease finds the use of floss a problem, without expressing endorsement or agreement. Instead, the idea is that, for MI to succeed, the clinician will be expected to show that finding flossing hard can be a genuine difficulty for patients that might make them disengaged with this oral hygiene behaviour.

2. Developing discrepancy with the view of supporting *Change Talk*

The second process is that of creating and amplifying a discrepancy between where the person currently finds him/herself behaviourally, and the goals and values that are important to the person. An example would be a person who is currently showing lack of physical activity but has a view of his/her future self as a fitter, healthier person. The important issue here is that the discrepancy needs to originate within the person; this is not a practitioner-defined process. This process is at the heart of MI. Where patients are ambivalent about change (*'I want to be healthier and fitter but I also enjoy sitting on my couch, watching soaps whilst eating doughnuts'*), it is suggested that they will become, through MI, aware of the discrepancy between their current behaviour and their goal. The combination of ambivalence and discrepancy are said to be the key motivators of change within the person. Miller and Rollnick suggest a few ways in order to develop this discrepancy. Two of these are described here:
1. A Decisional Balance Table (Figure 1); and
2. An Importance Ruler (Figure 2).

The Decisional Balance Table (Figure 1)

This is a way of guiding the conversation about change, working with, rather than against, the patient's ambivalence. The table discusses the order in which the conversation needs to address the pros and cons of changing vs not changing. It is advocated that the *positives* of *not changing* one's behaviour are explored first. By asking patients to discuss these shows an empathetic awareness that: i) there are positives to not undertaking a change; and ii) that they are worthy of a practitioner's time and attention. For example, in a periodontal clinic consultation, the conversation would revolve round the positives of not flossing regularly or brushing intermittently. What tends to happen in practice is that, once a person has started talking about the positives of the status quo, his/her ambivalence takes over, tipping him/her into considering (and vocalizing) the *disadvantages* of non-change. Note that this process too is patient-initiated and driven; by considering the negatives of not changing the idea is that patients start their own *Change Talk* by becoming aware of the fact that, rather than not being ready or willing to change, they are in fact ambivalent about staying with the current no-change regimen. The next step would then be to consider the barriers to change, whereby the person would be encouraged to talk about the difficulties he/she would encounter if exploring changing, finishing with the person's own argument for change. The important aspects of this Decisional Balance table are that the conversation always starts with the *positives of non-change* and ends with the *positives of change,* the process centring on patients exploring their own ambivalence about the behaviour they are considering changing.

The Importance Ruler (Figure 2)

This is a simple scale that the MI-practitioner uses to elicit the person's assessment of his/her own value/goal. For example, where the goal is to be a fitter, healthier person, the MI-practitioner might use this ruler to ascertain how important it is for the person to give up sitting on the couch watching TV and eating doughnuts. Here, the actual rating patients give is not the primary interest. What is of interest is how the ruler is used to support change. So, where a patient assesses giving up inactivity and unhealthy eating as a 9 (a high rating), the practitioner would follow on with a comment on how high that is and establish that the behaviour change is something that is important to the patient. This conversation would then lead to patients accepting that the behaviour they are considering is indeed something they care a lot about. Similarly, where a patient gives a low rating, the clinician question would be '*Why not (X–1)'* than the figure given. So, where the patient talks about the importance
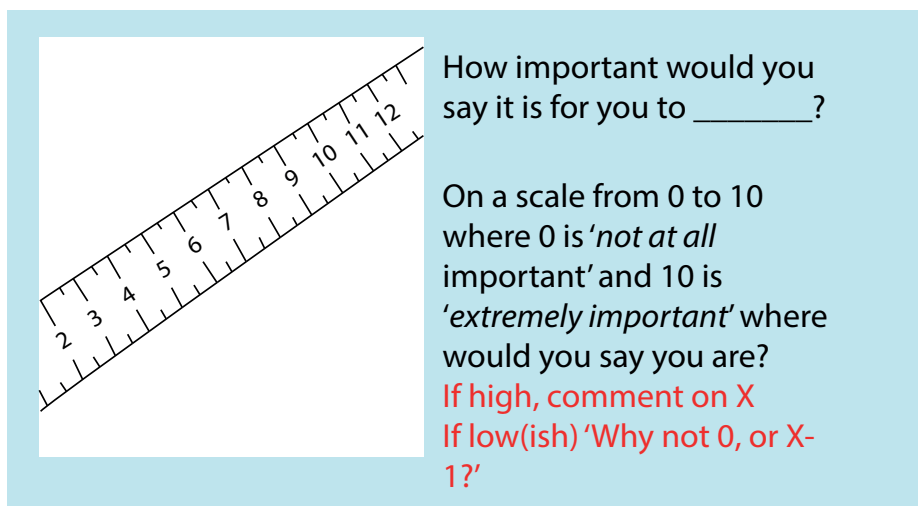
How important would you say it is for you to _____?

On a scale from 0 to 10 where 0 is '*not at all important*' and 10 is '*extremely important*' where would you say you are?
If high, comment on X
If low(ish) 'Why not 0, or X-1?'

Figure 2. Developing discrepancy: The Importance Ruler.

And how confident would you say are are, that if you decided to _____, that you *could* do it?

On a scale from 0 to 10 where 0 is '*not at all confident*' and 10 is '*extemely confident*' where would you say you are?
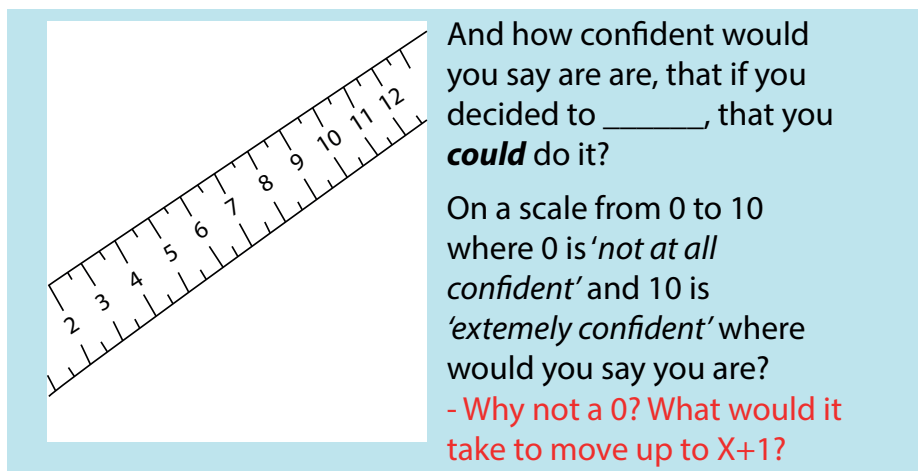- Why not a 0? What would it take to move up to X+1?

Figure 3. Confidence Ruler - to assess self efficacy.

of giving up inactivity as a 3, the practitioner comment would be '*So not a 2 – why not a 2 or a 1?*'. Again, this type of communication is counterintuitive to what most clinicians would say to a patient who rated the importance of a seemingly quite important behaviour low! By focusing on the lower end of the importance scale, patients are said to become aware that, although they rate the behaviour as not terribly important, they are not totally disinterested in it. The conversation then goes on to explore why they are at all interested. This brings us back to the point we made earlier, that unless patients have *some* interest in behaviour change, MI will not be of much use.

3. Rolling with resistance
What makes MI an interesting behaviour change technique is that,

counterintuitively, the MI practitioner does not oppose resistance and does not argue for change. Rather, Miller and Rollnick argue that the key is for the MI practitioner to *roll with resistance.* The idea here is that an ambivalent person, who is confronted with arguments for change, is likely to use his/her ambivalence to argue against change. For example, telling an ambivalent current smoker why smoking is likely to damage his/her health is only going to heighten arguments as to why smoking is in fact not as dangerous or unhealthy as the clinician is making out. In contrast, going with the flow of resistance is less likely to urge the patient to work hard to find reasons to prove the clinician wrong.

4. Supporting self-efficacy
Finally, the whole process is meant to support the patient's self-efficacy.

Self-efficacy is the person's belief and confidence that he/she can achieve a task, in this case, the behaviour change that might be under consideration. The aim is to enhance the person's confidence that he/she can succeed by, for example, using examples of previous instances where he/she has successfully undertaken a task that was personally important or difficult to achieve. Here, a MI-practitioner might consider using a Confidence Ruler to facilitate such talk and use the same principles discussed when describing the Importance Ruler to guide the conversation (Figure 3).

In summary, it should be obvious that MI is a philosophy rather than a magic tool designed to transform people's lives. MI heavily rests on a person having a clear goal/value that he/she would like to aim towards whilst, at the same time, being ambivalent about engaging in the behaviour change necessary to achieve this goal. As such, MI is not designed to be a single session technique; rather, it relies on a collaborative relationship between patient and MI-practitioner that is built and strengthened over time. More than a single session of MI-focused communication[2,3] is necessary in order to explore ambivalence, develop *Change Talk* and support a patient's self-efficacy in undertaking the desired behaviour change. Given the paradoxes involved in MI communication, treatment fidelity should be assessed and demonstrated to ensure that the session is truly delivering MI rather than any other behaviour change approach. Given these caveats, an evaluation of the quality of evidence that MI is successful in dentistry is presented.

The evidence for success of MI in dentistry

Although it might appear that there is now a sound body of evidence to show that MI in its intended format is an effective technique to bring about behaviour change, this view is questioned, on the basis of the latest review papers by Gao *et al,*[4] Albino and Tiwari[5] and Kopp *et al,*[6] all of which summarize current work on the effectiveness of MI on various aspects of oral health. Their conclusions vary in the degree of success they attribute to MI. For example, Gao *et al*'s review of RCTs in various oral health settings concludes that MI shows '*varied success*' (p426) in improving oral health outcomes. Albino and Tiwari, on the other hand, reviewing work

aimed to influence childhood caries, advocate MI as greatly successful where they note that '*As a group, the MI studies are remarkable for results that are sustained over longer periods of time*' (p39). Finally, Kopp *et al* suggest that '*MI as an adjunct to periodontal therapy might have a positive influence on clinical periodontal parameters*' (p1).

When examining the studies included in the above reviews in detail though, the extent to which the reviewed studies truly involved an actual MI intervention is questionable. For example, where MI is designed to be delivered over multiple sessions, of the 13 MI studies that targeted oral health-related behaviours reviewed by Gao *et al*, and Albino and Tiwari, 10 were based around a single session – most frequently of 20 minutes; only a single study reported sessions of 60 or more minutes. Further, only 2 studies tested the fidelity of the intervention using a structured assessment tool. In the review by Kopp *et al*, of the 5 reviewed studies, 2 trialled MI combined with cognitive behavioural techniques, 2 were delivered through a single-session and only 1 examined the effects of MI over 4–5 sessions.

Given these methodological limitations it is suggested that the reviewed studies have demonstrated that a structured, inspired by MI, approach to behaviour change may well have some beneficial impact on oral health outcomes, but that the extent to which these outcomes are truly the result of an authentic practice and delivery of MI in its original spirit, is questionable.

Success in practice – motivational or a motivating behaviour change?

Given the work described above it is proposed that, although MI in its intended application may well be difficult to apply faithfully in the dental clinic, some of the tools used in MI can be successfully used in order to deliver an MI-inspired, 'motivating' behaviour change session. The authors' previous work on the subject[7-9] has demonstrated that a structured approach, utilizing Goal Setting, Planning and Self-Monitoring (GPS) can yield positive outcomes, especially in periodontal health. In this work, it has been demonstrated that setting goals that are Specific, Measurable, Achievable, Realistic and Time Specific (SMART), supplemented by *If-Then* planning (patient-initiated plans to deal with barriers

to achieving the SMART goal), whilst self-monitoring (through eg the use of checklists or diaries), can be effective in helping patients engage in behaviour-change in clinic.

Here, looking at the techniques involved in MI, it is proposed that these can be used in combination with a GPS-based behaviour change intervention. To this end, it is proposed that the following schedule of steps for clinicians interested in applying an inspired-by-MI (iMI) GPS consultation, called an iMI-GPS model of behaviour change, is adhered to:

1. Explore with the patient a goal that the patient is interested in achieving. This goal needs to be one that he/she has chosen rather than a clinician-imposed outcome.
2. Use the Importance Ruler to assess how important it is for the patient to achieve this goal. Comment appropriately on the Importance rating he/she gives – remember the rating itself is not that important, it is the opportunity to develop ambivalence that should be sought at this stage.
3. Discuss the various behaviours that the patient could engage with in order to achieve the goal. Settle on one that the patient chooses as a viable option for his/her personal circumstances.
4. In discussion of the behaviour outlined in (3), use the Decisional Balance Table to explore the advantages and disadvantages of adopting/not adopting this new behaviour. Remember to start at the advantages of the status quo (no change) and finish with the advantages of change.
5. Outline the goal that the patient set in (1) above and the behaviour necessary to achieve it that was agreed in (3), in SMART terms. Ensure that the goal is phrased in SMART terms – generic, over ambitious goals are unhelpful.
6. Discuss potential barriers to implementing this new behaviour. Discuss an *If-Then* contingency with the patient, to help eliminate these barriers.
7. Use the Confidence Ruler to assess the patient's Self-Efficacy. Like the Importance Ruler, the idea of obtaining a rating is to focus on how there is some belief that the patient could succeed in changing his/her behaviour so a low rating here is not a problem.
8. Suggest a self-monitoring diary where patients record how well they are doing with their new behaviour and where their *If-Then* plans have had to come into action.
9. Agree a time to review all of the above.

Conclusion

This paper has outlined the principles of using MI in practice. It has been shown that, whilst the evidence for the success of pure MI in dentistry is weak, an adapted model may well suit dental practitioners and patients better.

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