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Short Communication

An evaluation of workshop training in motivational interviewing for oral health counsellors

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ABSTRACT

The aim of the study was to describe the findings of workshop training of clinical and non–clinical oral health personnel in a motivational interviewing (MI) approach to oral health counselling.A two–day workshop was conducted to provide training in MI as part of the training for a randomised controlled trial. The training involved a series of short presentations covering the principles, practice and the 'spirit' of the MI approach, structured practice exercises and role–play demonstrations. Participants (n=10) undertook structured practice exercises in the use of open–ended questions, non–verbal listening and reflective skills, summaries and affirmations in MI. Trainees then undertook simulated parent practice exercises using role–play with performance feedback and MI with parents of preschool children in a dental care setting.The workshop was evaluated using a knowledge–based questionnaire, trainer evaluation and a Helpful Response Questionnaire. Data were analysed using the paired t–test and the Wilcoxon Signed Rank test.Mean MI knowledge (from 4.3±1.5 to 6.4±1.4,$p < 0.01$) and Helpful Response Questionnaire scores (from 6.9 to 11.3,$p < 0.01$) significantly improved.The two–day workshop improved knowledge in MI and empathy among participants.

INTRODUCTION

Dental caries is largely believed to be preventable through simple behavioural changes. Traditional approaches to affect behavioural change to prevent dental caries have relied principally on providing information (health education) and encouraging behavioural change. Such approaches have been found wanting in affecting long–term improvements in oral health [1,2]. A few published articles have indicated potential for using an alternative approach to traditional health education to improve oral health [3,4].

Motivational Interviewing (MI) is an approach which relies on a brief empathic counselling session where clients are helped to explore and verbalise the reasons for changing the health behaviour and find the reasons for the change themselves [5]. The impetus for change stems from the client and is not imposed by the counsellor; the client is the initiator and an active participant in the change process and not merely a recipient of information being delivered by an expert [6].

A systematic review of oral health promotion interventions by Yevlahova and Satur [2] reported that MI interventions were the most effective method for individual counselling to affect health behaviour change in a variety of settings. They also noted however a lack of information on the levels of MI training, MI skill and duration of MI interventions necessary to achieve desired outcomes.

Hinz [7] provided brief MI training for dental students as part of a course in advanced topics in behavioural dentistry. Following three hours of lectures in MI and self–evaluation reports, the brief training was deemed

to be successful in teaching basic MI techniques, based on grading of the students' reports. Croffoot et.al. [8] found improved MI skills in dental hygiene students using two taped sessions to coach students in addition to seven hours of lectures and practical exercises.

Training of members of the general public in MI suggests that non–health professionals are able to be trained to deliver effective oral health promotion using the MI approach [4]. Weinstein et al. [4] enlisted parents who were trained to deliver oral health promotion using the MI approach and found health care behaviour changes among study participants. A study of training of other professionals to assist children to adhere to recommended oral health care found improvements in MI knowledge and willingness to use MI in interactions with parents and children [9]. These studies suggest that non–oral health personnel can be trained in the MI approach and deliver effective oral health promotion.

The aims of the current report are to describe an approach to MI training as part of a study to reduce early childhood caries and to evaluate the outcomes of this training on clinical and non–clinical research personnel.

METHODS

Background to training and participants

In June 2011, a two–day workshop was conducted to train participants in MI. A total of ten dental clinic assistants and dental therapists, employed by Dental Health Services, Health Department of Western Australia (HDWA) volunteered to take part in the training workshop. None of the participants had background knowledge of MI, had previously read a book on MI nor attended a training course in MI. The participants were informed of the purpose of the training and provided assent for the use of the evaluation material for this report. They were trained as oral health counsellors to provide brief MI intervention as part of a randomised controlled trial (RCT) to reduce early childhood caries. The study design and methodology for the randomised trial are reported elsewhere [10].

Day one of the workshop consisted of a series of short presentations covering the principles, practice and the 'spirit' of the MI approach, structured practice exercises and role–play demonstrations. Participants undertook structured practice exercises in the use of open–ended questions, non–verbal listening and reflective skills, summaries and affirmations in MI. Day two consisted of simulated parent practice exercises using role–play with performance feedback. In the later part of day two, participants practised MI with parents of preschool children in a dental care setting.

Workshop evaluation

Evaluation of the training program consisted of a MI knowledge–base questionnaire, a Helpful Response Questionnaire and a trainer evaluation questionnaire. The knowledge base and trainer evaluation questionnaires used were those developed by Yale University School of Medicine [11].

The Helpful Response Questionnaire (HRQ) developed by Miller, Hedrick and Orlofsky was used to measure how the participants might respond to individuals expressing specific concerns [12]. The HRQ presents participants with six hypothetical statements from individuals raising particular problems or concerns. For each statement, the participant is asked to write the next thing that he or she would say if they wanted to be helpful. Each response is rated from 1 to 5 on an ordinal scale for depth of reflection, taking into consideration the occurrence or absence of reflections or communication roadblocks (communication roadblocks are responses that a counsellor makes which has the effect of slowing or stopping completely the processes required for helping people resolve problems). High scores are awarded for accurate empathy and no communication roadblocks, whereas low scores are given for responses that lack reflective listening and may include roadblocks to communication. In this study, a reflective depth score for each participant was derived by adding the response scores for each item, giving a maximum score of 30.

In order to assess the participants' knowledge of the principles and practices of MI, a questionnaire was administered as a pre–test (immediately before training) and post–test (immediately after training). It consisted of ten multiple–choice questions. Participants scored one point for each correct answer.

The HRQ was similarly administered before and after the workshop training to determine the impact of the training program on the participants' development of accurate empathy. A record was kept of all responses as to their pre/post training status and then de–identified before being presented to one of the trainers for rating. This was undertaken to prevent possible biases in the rating process due to prior knowledge of the training status. The blind trainer was provided with the HRQ rating criteria to undertake the ratings.

The participants were also asked to rate the extent to which the trainers covered the components of MI and the trainers' overall teaching skilfulness, using 7–point Likert type scales (1 = not at all to 7 = extensively) and (1 = very poor to 7 = excellent), respectively.

Finally, an assessment of the participants' interest in learning MI, confidence in and commitment to using it in the dental workplace was made, using a 10–point Likert type scale (1 = not at all to 10 = totally).

Data analysis

Questionnaire data were analysed using descriptive statistics. For the knowledge base questionnaire, pre– and post–test mean scores were compared using a paired two–sample t–test.

The Wilcoxon Signed Rank test was used to compare the HRQ pre– and post–training scores.

The level of statistical significance for tests was set at five percent. All data analyses were carried out using the JMP® version 9.0.0 statistical software, SAS Institute Inc.

RESULTS

Participants' characteristics

Ten female participants, mean age 43 years (SD = 8.6 yrs) undertook the MI training sessions. All were employed as dental clinic assistants or dental therapists in the School Dental Service (HDWA). None of the participants had background knowledge or training in MI.

Participants' knowledge of MI

From a maximum possible score of 10, the participants' knowledge pre–test mean score was 4.3 (SD = 1.49) and post–test score was 6.4 (SD = 1.43). Comparison of mean scores using a paired two–sample t–test revealed a statistically significant difference *($p < 0.01$)*.

Item analysis

The distribution of pre– and post–test knowledge scores for the individual questionnaire items is shown in Table 1. Overall, there was an improvement in participants' knowledge across the items that comprised the questionnaire.

HRQ

The HRQ pre– and post–training mean scores were 6.9 and 11.3, respectively. Comparison of the pre– and post–training HRQ scores using the Wilcoxon Signed Rank Test revealed a statistically significant difference *($p < 0.01$)*, indicating that the workshop training produced an overall improvement in the development of empathy amongst participants.

Participants' satisfaction with training

Overall, the participants demonstrated considerable satisfaction with the trainers' coverage of the essential elements of MI (total mean score = 6.34, SD = 0.81).

The trainers' overall level of skilfulness in training was rated as very good to excellent, six out of ten participants rated the trainers at the maximum score of seven (mean score = 6.3, SD = 1.06).

The participants also demonstrated a strong interest in learning MI (mean score = 9.3, SD = 0.82), a high level of confidence in their ability to use MI (mean score = 8.6, SD = 1.51); (Figure1) and commitment to incorporating MI in the dental workplace (mean score = 9.2, SD = 1.14).

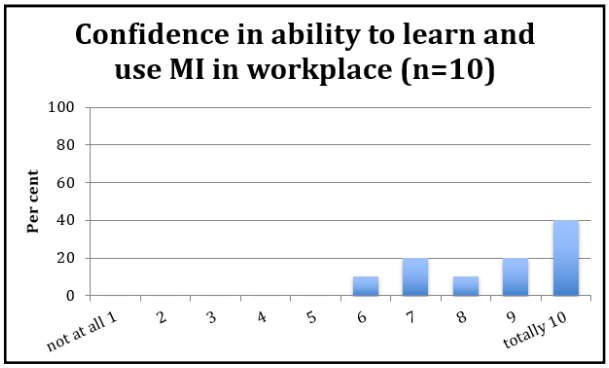

Figure 1. Participants' confidence in using MI.

Table 1. Pre– and post–test scores for individual questionnaire items

Questionnaire item	Responses (n)†	Pre–test (%)‡	Post–test (%)
Eliciting parents' prime concerns	10	40	100
Identifying the MI* style	10	70	90
Identifying elements in MI	10	40	40
Behaviours inconsistent with the MI approach	10	10	10
Reflective listening skills	10	10	50
Ambivalence in parents	10	30	50
Parental resistance to change	10	20	40
Health professional/ client interaction in MI	10	90	90
Principles of MI	10	50	70
Aim of MI	10	70	100

n† = number of participants; %‡= percentage; MI* = motivational interviewing

DISCUSSION

There is limited information available on training in the motivational interview approach in oral health promotion. The current study reports on training provided to oral health clinicians and non–clinicians recruited to be counsellors in a RCT. The training using the format of didactic delivery of information, role–play, and practice of set scenarios was able to improve knowledge and develop a greater interest and confidence in using the MI approach to oral health promotion. Other studies, using slightly different approaches in teaching MI for oral health promotion have also found improvements in knowledge and confidence with using MI [7] and that coaching using feedback of recorded sessions further improved the application of the MI approach during counselling [8].

Some limitations of our study include the small sample size, restricting wider generalisability, and the unavailability of assessment of the fidelity of the MI approach in the counselling by all trainees. Only four of the trainees were recruited for the RCT.

A more recent report evaluating an enhanced training in MI for nurses working in child health services and as part of a randomised trial for obesity control, found no difference in proficiency levels for participants between pre– and post–training [13]. This result contrasted with the findings reported in our study. The differences might be due to the fact that the study by Bohman et al. [13] measured MI proficiency using scores from a recorded session coded using the Motivational Interviewing Treatment Integrity (MITI) Code, and coaching and support subsequent to the initial workshop training. But no pre–training scores were available to judge the changes that may have occurred. The authors also noted that the relatively poor reliability of the coders in coding the recorded session might have contributed to the finding of a null training effect. Our study used pre– and post–training scores to measure changes as a result of the training, and we measured change in knowledge and the development of empathy via the HRQ and an evaluation of the trainer, but proficiency in applying the MI counselling was not assessed.

A report on training using the workshop format as described here indicated improved knowledge and a modest change in practice behaviours, which was maintained after a 4–month period, but limited change in client responses to counselling [14]. Miller and Mount found that when using the HRQ measure, the training participants showed significant improvements in MI skills, while coded responses of pre– and post–training recorded sessions did not show statistically significant changes, and concluded that the clients' responses did not indicate any likelihood of affecting behavioural change.

The four counsellors from this study recruited for the RCT have all had further follow–up coaching using recordings of the counselling sessions. This was to improve MI skills and maintain consistency with the MI approach as part of the study protocol. Further follow–up is required to assess the maintenance of skills and application in practice of MI among study participants. This study adds to the available literature on the approaches taken to train personnel in MI counselling. There is conflicting evidence supporting our approach to MI training. This suggests that further studies, using a randomised control design with larger sample sizes, may be required to elucidate the optimum approach to MI training.

CONCLUSION

The participants successfully increased their knowledge of MI principles and practices and level of empathy after undertaking the two–day training workshop. Furthermore, the participants formed a very positive attitude towards MI as demonstrated by their interest in learning about MI, developing confidence to use these new skills and committing to use MI in their workplace. Further follow–up studies to determine the actual use of the MI approach, retention of knowledge, and fidelity of the application of the MI approach in oral health promotion is required.

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The authors declare that they have no conflict of interest.

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