

Brief Report

Pragmatic Insights Into A Nurse-Delivered Motivational Interviewing Intervention In The Outpatient Cardiac Rehabilitation Setting

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ABSTRACT

PURPOSE: Despite an increasing interest in motivational interviewing as a strategy to facilitate behavior change in people with cardiovascular disease, its use specifically in cardiac rehabilitation (CR) appears minimal. Therefore, it is unclear if the clinical method of motivational interviewing requires modification for the CR population, in which it could be argued that people are motivated and engaged. The purposes of this report are to describe processes in incorporating motivational interviewing in the CR setting and to discuss insights gained regarding the use of this intervention.

METHODS: As part of a randomized controlled trial currently recruiting in the CR setting, CR patients allocated to the intervention group participate in two motivational interviewing sessions with a motivational interviewing-trained nurse. To ascertain treatment fidelity, this process review comprised three sources: (1) the extant literature on motivational interviewing; (2) reflections of the project team; and (3) data derived from audio-taped interviews.

RESULTS: Key observations reflect that the motivational interviewing technique is well received with patients appreciating the opportunity to “tell their story”. Preliminary qualitative data revealed that patients rate “health” and “family” as their most important values, with many commenting on their recovery phase as a “second chance”.

CONCLUSIONS: This report demonstrates that motivational interviewing is potentially useful and has significant promise in the CR setting. Discussion of pragmatic considerations as well as outcome data should assist clinicians in implementing this model of intervention in the CR setting.

Keywords

cardiac rehabilitation; motivational interviewing; randomized controlled trial

Condensed Abstract

This report describes the process of incorporating motivational interviewing as a nurse-delivered intervention to facilitate behavior change in a study currently recruiting in the cardiac rehabilitation (CR) setting. Pragmatic insights and issues related to the feasibility of incorporating motivational interviewing into the CR setting are discussed.

INTRODUCTION

Although cardiac rehabilitation (CR) programs remain an integral component in the management of people diagnosed with heart disease, attendance rates remain suboptimal and compliance with risk-reducing behaviors problematic.^{1,2} A challenge for CR staff is to motivate and facilitate behavior change. Motivational interviewing is a counseling technique developed by Miller and Rollnick,³ demonstrating improvements in managing a range of behaviors adversely impacting on health, particularly addictive behaviors. This is an effective approach to overcoming the ambivalence that keeps many people from making desired changes in their lives.⁴ Traditionally, the CR setting is seen as a source of expert advice and discrete differences in tailoring interventions are dependent on whether the patient is making an active attempt in engaging treatment.⁵ Motivational interviewing is designed to elicit, clarify and resolve ambivalence, as well as draw out and reinforce the individual's belief in the ability to achieve behavior change.⁶

Systematic reviews and meta-analyses of randomized controlled trials show that motivational interviewing, in a scientific setting, outperforms traditional advice-giving in the treatment of a broad range of behavioral problems and diseases.^{7,8} As a result of these encouraging trends, there is an increasing interest in motivational interviewing as a strategy to facilitate behavior change in people with cardiovascular disease. In spite of the growing numbers of studies using motivational interviewing, experience to date, specifically in CR, is limited.^{9,10} In addition, it remains unclear as to how motivational interviewing has its effect, and which elements of this counseling style are essential,¹¹ while issues of timing, dosing, medium and delivery of this intervention, and achieving treatment fidelity, remain contentious. As a consequence, practitioners and researchers cannot be confident whether the clinical method of motivational interviewing requires modification in the CR population, in which it could be argued that people are motivated

and engaged. If motivational interviewing is adopted as an intervention model within the CR setting, information is needed on implementation techniques and how these may be tailored to fit this patient group. The purposes of this report are to describe our processes in incorporating motivational interviewing in the CR setting, and to discuss insights gained from the use of this intervention.

METHODS

The majority of CR programs in Australia are nurse-coordinated and delivered in the outpatient setting.¹ Using a randomized controlled design, nurse-delivered motivational interviewing, incorporated into a standard 6-week CR program, was evaluated in 104 patients as a strategy for increasing risk factor modification and psychological well being in CR patients. The nurse who delivered the intervention received accredited motivational interviewing training¹² prior to commencement of the randomized controlled trial (RCT).

In addition to the standard CR program, patients allocated to the intervention group received two 1-hour counseling sessions within the first 2 weeks of their program.

Assessments occurred at baseline, upon completion of the CR program (6 weeks) and at 12 months. The 6 minute walk test was the primary outcome measure, while self-efficacy, depression, anxiety, stress, and quality of life were assessed to measure the impact of the intervention on psychological and social well-being. This report presents the clinical method of motivational interviewing used in this study, and key observations which may assist clinicians considering implementing a similar intervention in their CR settings. This process review comprised three sources 1) literature on motivational interviewing informing the study protocol;⁴ 2) reflections of the project team; and 3) data derived from audio-taped interviews to ascertain treatment fidelity.

The Intervention

The intervention was designed as two, 1-hour counseling sessions, based on Miller and Rollnick's³ conceptualization of motivational interviewing occurring in two phases. While at times overlapping, Phase 1 involves exploring and resolving ambivalence, and building motivation for change by eliciting "change talk." (eg, patient statements of desire, ability, reasons and need for change.)⁷ Change talk is generally taken as the cue to transition to Phase 2, which focuses on strengthening commitment to change, and developing a plan for achieving commitment.

Because of the randomized controlled design of the study, the sessions required a high degree of structure to ensure methodological rigor. At the same time, findings that manual-guided motivational interviewing is associated with smaller effect sizes,⁷ and the need to uphold the spirit of motivational interviewing, in particular patient autonomy and collaboration,¹³ mean the sessions require a degree of flexibility.

The first session commenced by providing the patient with a brief overview of the structure of the 2 sessions, designed to ease any patient apprehensions, while providing an opportunity to correct any differing expectations about what the sessions entail. The nurse asks patients to share how they have come to attend the CR program. While this information can be obtained from the patient notes, asking patients to "tell their stories" is believed to uphold the patient-centered approach of motivational interviewing,³ and provides an opportunity for the nurse to identify potential areas for behavior change. Importantly, this is a useful strategy for beginning to establish rapport, which is crucial to the success of behavior change interventions.^{3,13} The nurse uses open-ended questions, reflective listening, affirming, and summarizing, to clarify meaning and gain a deeper understanding of the patient's experience during this part of the session.

Most patients attending CR have multiple risk factors and engage in risk behaviours to support these factors, challenging both providers and clinicians. For example, a risk factor such as obesity may be related to behaviours such as inactivity or unhealthy eating. Because it is not possible to “effectively negotiate a healthier lifestyle in general”,¹³ it is explained to patients that, if possible, selecting one specific behavior targeting a given risk factor will make the sessions more manageable. Through careful listening and eliciting, exploring readiness (eg, “*Which of these areas do you feel most ready to think about changing?*”), and using a directive, yet patient-centered style, a single behavior is selected for discussion (eg. increasing physical activity).

Following identification of the behavior, the patient’s perceptions of importance and confidence, components of intrinsic motivation, were assessed using the concept of a ruler with gradations from 0 to 10 for each of these dimensions.³ A decisional balance sheet was used to explore ambivalence, where the patient is asked about the good things and the not-so-good things, about both, changing the behavior, or continuing as before. This was followed by a transitional summary, which is used to shift from one focus to another. In this case, it was used as a wrap-up toward the end of the session,³ allowing the nurse to introduce the Personal Values Card Sort¹⁴ as a “homework” exercise. The Personal Values Card Sort was included in the intervention to increase the patients’ sense of importance of change,³ and to focus on values that may stimulate motivation to change. It is also a useful way of what Miller and Rollnick³ describe as “looking-forward”, where focusing on ideals increases a person’s desire for change by shifting the focus away from “negative” behaviors toward a more positive, satisfying lifestyle.

Session 2 of the intervention was designed to focus on consolidating commitment. After commencing with a statement summarizing Session 1, the patient was asked to share the 4 most important values selected from the Personal Values Card Sort. After the patient

shared reasons for the selection, the nurse incorporated these into a discussion about the pros and cons of changing the selected behavior, previously discussed in Session 1. The session then moved into preparing a change plan, which documents the specific behavior to be changed (or maintained, if patients had already made some attempt to change), and specific strategies for how this will be achieved. These processes are summarized in Table 1.

RESULTS

Key observations reflect that patients wanted to “tell their stories” and welcomed the opportunity for an unstructured and private discussion where they had the time to process events, ask questions, and plan for the future. Among both men and women, there was a high level of comfort in disclosure of troubling events and personal issues. What was initially planned as a brief (10 minute) session proved to be insufficient, with most patients requiring twice as much time for this part of the first session.

As well as engaging in behavior change discussion, patients were taking the opportunity to clarify treatment decisions and therapies. The setting and privacy of the motivational interviewing session gave the participant “permission” to express fears, anxieties, and hopes for the future. Study personnel reflected that patients “*just don’t stop talking... they love the undivided time and attention*”. Despite focusing on behavior change, many of the questions patients posed related to treatment clarification and discussion of misconceptions. Therefore, the CR nurse is well suited to give this intervention, with appropriate motivational interviewing training.

Preliminary qualitative data revealed that patients rate “health” and “family” as their most important values, and many commented on their recovery phase as a “second chance”. Patients participating in the study were responsive to the spirit of motivational

interviewing, which embraces an empathetic and caring approach that is respectful, non-judgmental and commits to working collaboratively to address negotiated goals.

DISCUSSION

Based on these findings, motivational interviewing is a technique deemed readily acceptable by CR patients. However, there are limitations to be considered in interpreting issues discussed here. Importantly, these were patients, who by virtue of attendance at a CR program, could have been motivated to initiate behavior change. Furthermore, these individuals voluntarily consent to participate in this RCT which means they may feel more prepared and comfortable in engaging in this type of intervention. This suggests that these individuals may not be typical of ‘resistant’ patients for whom motivational interviewing is so effective.

The feasibility of implementing motivational interviewing in the CR setting also warrants consideration. Motivational interviewing usually focuses on the individual, whereas CR often incorporates family members and harnesses the processes of group dynamics. The range of risk factors that need to be addressed by patients in CR is also in contrast to motivational interviewing interventions evaluated in the area of addiction that tend to focus on a single behavior, such as alcohol use. Therefore, interventions may be more complex in their implementation.

The use of motivational interviewing has implications for the training and skill set of health professionals working in CR. Apart from the need for initial training of CR staff in motivational interviewing, on-going mentorship and collaboration with other motivational interviewing providers would be needed to further develop skills, and problem-solve issues that arise. Further, in order to deliver the intervention effectively, the attitude and commitment of the individual delivering the intervention is paramount to

treatment success. The process of motivational interviewing is largely dependent on “listening” rather than “telling”. Therefore, CR interventions potentially need to change the focus from “educating” to “eliciting,” listening to the patient and accommodating ambivalence and resistance.

CONCLUSION

Although the data are blinded and comment on study outcomes to date is not possible, the discussion of pragmatic elements of a motivational interviewing intervention may assist other clinicians and researchers in the implementation of what is increasingly considered to be a technique with significant potential to facilitate behavior change. In order to successfully adopt the principles of motivational interviewing in the CR setting, investigators need to provide equal emphasis on reporting of processes as well as outcomes, to facilitate the extrapolation of this promising technique to the CR setting.

REFERENCES

1. National Heart Foundation of Australia & Australian Cardiac Rehabilitation Association. *Recommended Framework for Cardiac Rehabilitation '04*. National Heart Foundation of Australia; 2004.
2. Leon AS, Franklin BA, Costa F, et al. Cardiac rehabilitation and secondary prevention of coronary heart disease: an American Heart Association scientific statement from the Council on Clinical Cardiology (Subcommittee on Exercise, Cardiac Rehabilitation, and Prevention) and the Council on Nutrition, Physical Activity, and Metabolism (Subcommittee on Physical Activity), in collaboration with the American Association of Cardiovascular and Pulmonary Rehabilitation. *Circulation*. 2005;111:369-376.
3. Miller WR, Rollnick S. *Motivational Interviewing: Preparing People for Change*. 2nd ed. New York: The Guildford Press; 2002.
4. Hancock K, Davidson P, Daly J, Webber D, Chang E. An exploration of the usefulness of motivational interviewing in facilitating secondary prevention gains in cardiac rehabilitation. *J Cardpulm Rehabil*. 2005;25:200-206.
5. Vasilaki EI, Hosier SG, Cox WM. The efficacy of motivational interviewing as a brief intervention for excessive drinking: a meta-analytic review. *Alcohol Alcohol*. 2006;41:328-335.
6. Miller WR. Motivational interviewing with problem drinkers. *Behav Psychother*. 1983;11:147-172.
7. Hettema J, Steele J, Miller WR. Motivational interviewing. *Annu Rev Clin Psychol*. 2005;1:91-111.
8. Rubak S, Sandbæk A, Lauritzen T, Christensen B. Motivational interviewing: a systematic review and meta-analysis. *Br J Gen Pract*. 2005;55:305–312.

9. Scales R. Motivational interviewing and skills-based counseling in cardiac rehabilitation: the cardiovascular health initiative and lifestyle education (CHILE) study. UMI Proquest Digital Dissertations. Available at:
http://wwwlib.umi.com/dissertations/preview_all/9826655. Accessed May 14, 2007.
10. Webber D. Motivational interviewing in cardiac rehabilitation. *Cardiac Rehabilitation*. 2003;August:3-5.
11. Britt E, Hudson SM, Blampied NM. Motivational interviewing in health settings: a review. *Patient Educ Couns*. 2004;53:147–155.
12. Porter, J. Introduction to Motivational Interviewing (Accredited Course). Australian Institute of Social Relations, Adelaide, South Australia, February 13-14, 2006.
13. Rollnick S, Mason P, Butler C. *Health behaviour change: a guide for practitioners*. Edinburgh: Churchill Livingstone; 1999.
14. Miller WR, C'de Baca J, Matthews DB, Wilbourne PL. Personal values card sort. Available at: <http://casaa.unm.edu>. Accessed April 14, 2007.

TABLE 1. OVERVIEW OF MOTIVATIONAL INTERVIEWING SESSIONS

<p>Session 1: Goal – explore and resolve ambivalence; build motivation for change</p> <ul style="list-style-type: none"> ▪ Provide brief overview of sessions ▪ Ask patient to explain how they came to attend the cardiac rehabilitation program (“tell their story”) ▪ Facilitate selection of a single health behavior for discussion ▪ Assess importance of, and confidence for, changing health behavior ▪ Use decisional balance sheet to explore ambivalence (“pros” and “cons” of change) ▪ Introduce “Personal Values Card Sort” ▪ Provide summary statement 	<p>Session 2: Goal – consolidate commitment</p> <ul style="list-style-type: none"> ▪ Provide summary of previous session ▪ Ask patients to share the results of their “Personal Values Card Sort” ▪ Use selected values to build motivation for change – link to “pros” and “cons” of change ▪ Develop strategies for moving forward – “change plan”
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