The Effectiveness of Motivational Interviewing in the Management of Diabetes: Evidence Summary

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Public Health Intelligence
Public Health
8th September 2016
1.1 Resources Used

In this search/summary, the following resources (listed alphabetically) have been used:

- AQUA (password required)
- Bolton’s Health Matters
- Copac
- Google Scholar
- Gov.uk
- Healthcare Databases Advanced Search Databases (password required)
- Map of Medicine (password required)
- NICE
- NICE Evidence
- Open Doar
- Open Grey
- SCIE
- The Cochrane Library
- TRIP Database
- UK Health Prevention Forum
- Social Policy & Practice Database
2 Systematic Reviews

2.1 Cochrane Library Highlights

Cochrane Library is a collection of high level systematic reviews. Simply put, if a ‘Cochrane Review’ has been produced on your topic – there is a good chance it meets your needs!

No relevant results were found.

2.2 Other Systematic Reviews

Below are a collection of other (non-Cochrane) systematic reviews that you may find relevant to your needs:

Title: Motivational interviewing and outcomes in adults with type 2 diabetes: A systematic review
Citation: Patient Education and Counseling, June 2016, vol./is. 99/6(944-952), 0738-3991;1873-5134 (01 Jun 2016)
Author(s): Ekong G., Kavookjian J.
Language: English

Abstract: Objectives: The management of type 2 diabetes (T2D) requires complex behavior changes and treatment regimens to achieve optimal outcomes. Interventions including motivational interviewing (MI) have been explored to help patients achieve behavior change and outcomes; this
study aimed to explore evidence and gaps in the literature for MI interventions and outcomes in adults with T2D. Methods: A modified Cochrane method structured the search strategy among databases including MEDLINE, CINAHL, PsycINFO, and others. Inclusion criteria included randomized controlled trials that assessed the effects of MI on behavior change outcomes and resultant clinical outcomes in adults with T2D. Results: Of the initial 159 studies identified, 14 were eligible for retention. Behavior targets in the retained studies included dietary changes, physical activity, smoking cessation, and alcohol reduction. MI had significant impact on some dietary behaviors and on weight loss. MI intervention structures were heterogeneous across studies; fidelity assessment was infrequent. Conclusion: The effects of MI interventions on outcomes in T2D showed promising results for dietary behaviors. Clinical change outcomes from MI-based interventions were most favorable for weight management in T2D. Practice implications: Behavior-specific MI interventions may positively influence study outcomes. Assessment of MI intervention fidelity will enhance treatment integrity and claims for validity.

Publication Type: Journal: Review
Source: EMBASE
Abstract: Providing medication therapy management (MTM) for patients with diabetes presents many challenges. Adherence problems include drug regimen, system, and patient-related barriers. Diabetes therapy should always incorporate components of behavior change. Therefore, a variety of counseling topics are needed in order to achieve optimal outcome goals. At a minimum, counseling sessions should include the following subjects: goals of therapy, drug regimen concerns, diet, and exercise. Motivational interviewing can serve as a valuable tool for achieving behavior changes. To obtain reimbursement for their services, pharmacists could complete a credentialing program and set up MTM services. Although providing MTM for patients is challenging, proper implementation of such services can be highly rewarding.

Publication Type: Trade Journal: Review
Source: EMBASE

For pharmacist led interventions Motivational interviewing can serve as a valuable tool for achieving behavior changes in patients with diabetes

Motivational interviewing-based interventions and diabetes mellitus
Source: Database of Abstracts of Reviews of Effects - DARE
Publication date: 04 February 2014
Abstract
Bibliographic details
Status
This is a systematic review that meets the criteria for inclusion on DARE.
Indexing status
Subject indexing assigned by CRD
Index terms
Diabetes Mellitus; Humans; Motivational Interviewing
Record category

Motivational interviewing in medical care settings: a systematic review and meta-analysis of randomized controlled trials
CRD summary
The authors concluded that motivational interviewing had effects across delivery location and patient characteristics, and when delivered in brief interventions. These conclusions largely reflected the evidence, but those on the time frame were less clear. Their reliability may be affected by limitations in the review methods.

Authors' objectives
To evaluate the effectiveness of motivational interviewing in medical care settings.
Searching
Eight databases (including PubMed, CINAHL and PsycINFO) were searched for peer reviewed articles published in English, from 1983 to August 2011. Search terms were reported. Other publications, identified by a network of trainers, were considered.
Study selection
Eligible were randomised controlled trials, comparing motivational interviewing or motivational enhancement therapy with no motivational interviewing, within the medical care setting including hospitals, clinics, emergency departments, medically-guided weight loss or diabetes centres, dentists, or physical therapy settings. Trials were excluded if participants were seeking help for
addiction or mental and behavioural health; if interventions were conducted in an HIV clinic; and if motivational interviewing was delivered without human contact.

Settings and targeted outcomes varied between the included trials. Providers spent an average of 18 hours being trained in motivational interviewing (range four to 40 hours). The intervention was delivered with or without problem feedback. Sessions were delivered face-to-face, by phone, or by both methods. Providers were mental health professionals, nurses, dieticians, physicians, or a mixture of types. In over half the trials, the control was treatment as usual; other controls were on a waiting list or provided with information only.

The authors did not state how many reviewers selected trials for inclusion.

Assessment of study quality

Trial quality was assessed using an 18-point scale, based on the number of participants, attrition, quality control, whether fidelity of intervention delivery was assessed, objectivity of measurements, and reporting of follow-up.

Two reviewers independently assessed trial quality.

Data extraction

Two authors extracted the data on the differences in effectiveness between the groups. These data were used to calculate odds ratios and 95% confidence intervals.

Methods of synthesis

Pooled odds ratios and 95% confidence intervals were calculated using a random-effects model. Regression analyses were conducted for continuous moderators, including delivery, patient characteristics, study design, and outcomes such as patient adherence, risk-reduction behaviours, and patient approach to change. Statistical heterogeneity was assessed using Cochran’s Q and I². Publication bias was assessed using Rosenthal’s and Orwin’s fail-safe N and visual inspection of funnel plots.

Results of the review

Forty-eight trials (9,618 participants) were included. Trial quality ranged from 7 to 17 out of a maximum of 18. Follow-up ranged from immediately after intervention to 13 months or more; for most studies it ranged from five weeks to six months.

Compared with control, there was a statistically significant effect for motivational interviewing (OR 1.55, 95% CI 1.40 to 1.71). There was evidence of significant statistical heterogeneity (I²=90.42%). Significant effects for motivational interviewing were reported for a number of outcomes, including blood pressure and cholesterol, HIV viral load, dental outcomes, death rate, body weight, physical strength, quality of life, substance use (including alcohol and tobacco), sedentary behaviour, self-monitoring, and approach to change and treatment.

There were no significant differences between motivational interviewing and control groups for eating disorders and other risk-reduction behaviours, post-stroke functional independence, medication adherence, self-care, breast-feeding, some substance use outcomes (smoking tobacco amount, or marijuana abstinence), and some medical outcomes, such as heart rate or blood glucose. All medical settings reported significant effects for motivational interviewing, except for HIV treatment clinics. Although each provider type reported positive outcomes, only those interventions delivered by mental health providers or mixed teams reached statistical significance. None of the patient characteristics (stage of disease, age, gender or ethnicity) significantly moderated the effects of motivational interviewing. Further results were reported.

There was no evidence of publication bias.

Authors’ conclusions

Motivational interviewing had robust effects across outcomes such as delivery location, and across patient characteristics. It appeared to be effective when delivered in brief consultations.

CRD commentary

The review question and inclusion criteria were broadly defined, and various data sources were searched. The limitation to trials published in English may mean some trials were missed; formal
assessment of publication bias found no evidence of it. Appropriate methods to reduce reviewer error and bias were used to extract the data and assess trial quality, but it was unclear whether similar methods were used to select trials.

Trial quality was assessed, but the results for each trial were not reported, so the robustness of the evidence is unclear. The methods of analysis appear to have been appropriate, and attempts were made to explore the reasons for the substantial statistical heterogeneity. The authors stated that it was often difficult to determine the type of control, which could have had an impact on the effect size.

The authors’ conclusions about delivery location and patient characteristics reflected the evidence, but their conclusions on time were less clear. The reliability of the conclusions may be affected by bias in the selection of studies and incomplete reporting of the quality assessment.

Implications of the review for practice and research

**Practice**: The authors stated that emerging evidence for motivational interviewing in medical care settings suggested that it had a moderate advantage over comparison interventions and could be used for a wide range of behavioural issues in health care.

**Research**: The authors stated that research to explain the findings or to refine and develop the intervention should thoroughly evaluate the process.

**Title**: Effective interventions for reducing diabetes distress: systematic review and meta-analysis.

**Citation**: International Diabetes Nursing, 2015, vol./is. 12/2(40-55), 20573316

**Author(s)**: Sturt, Jackie, Dennick, Kathryn, Hessler, Danielle, Hunter, Benjamin M., Oliver, Jennifer, Fisher, Lawrence

**Language**: English

**Abstract**: Aims: To identify randomised controlled trials (RCTs) in which diabetes distress (DD) was assessed in adults under experimental conditions and to undertake meta-analysis of intervention components to determine effective interventions for reducing DD. Methods: Systematic review searching Medline, Psychinfo and Embase to March 2013 for studies measuring DD. Two reviewers assessed citations and full papers for eligibility based on RCT design and Problem Areas in Diabetes Scale or Diabetes Distress Scale outcome measure. Interventions were categorised by content and medium of delivery. Meta-analyses were undertaken by intervention category where ≥7 studies were available. Standardised mean differences and 95% confidence intervals were computed and combined in a random effects meta-analysis. Results: Of 16 627 citations reviewed, 41 RCTs involving 6650 participants were included. Twenty-one a priori meta-analyses were undertaken. Effective interventions were psycho-education (−0.21 [−0.33, −0.09]), generalist interventionist (−0.19 [−0.31, −0.08]), ≥6 sessions (−0.14 [−0.26, −0.03]) and ≥3 months duration (−0.14 [−0.24, −0.03]). Motivational interviewing reduced DD (−0.09 [−0.18, −0.00]) and improved baseline elevated glycaemia (−0.16 [−0.28, −0.04]). Although statistical significance was observed most effect sizes were below 0.2. Conclusion: The review signposts interventions likely to reduce elevated DD in Type 1 and Type 2 and across the age profile. Interventional research is needed and warranted targeting elevated distress.

**Publication Type**: Periodical

**Source**: CINAHL

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**Title**: Motivational interventions in the management of HbA1c levels: a systematic review and meta-analysis.

**Citation**: Primary care diabetes, Jul 2014, vol. 8, no. 2, p. 91-100, 1878-0210 (July 2014)

**Author(s)**: Jones, Allan, Gladstone, Beryl Primrose, Lübeck, Marlene, Lindekiilde, Nanna, Upton, Dominic, Vach, Werner
Abstract: To review the diabetes literature in order to examine the effect of motivational interventions on treatment outcome as measured by changes in glycated haemoglobin. Relevant databases were systematically searched for randomised controlled trials in which motivational interventions were examined in relation to treatment outcome in people with type 1 and type 2 diabetes mellitus. The 13 studies identified for review included 1223 participants diagnosed with type 1 diabetes and 1895 participants diagnosed with type 2 diabetes. The analysis showed a 0.17% (95% CI: -0.09, 0.43%) improvement in glycemic control in people who received a motivational intervention compared to a control group, however, the effect was not statistically significant. The impact of motivational interventions in the management of blood glucose levels appears to be limited. However, due to the small number of studies and issues of heterogeneity caution in interpreting the present findings is advised. Moreover, the unique contribution of motivational interventions may be better assessed by outcomes such as behaviour change and other intermediate outcomes. Further research examining the delivery and focus of motivational interventions in helping people manage their diabetes is recommended. The clinical implications of the present findings are therefore uncertain pending further research. Copyright © 2014 Primary Care Diabetes Europe. Published by Elsevier Ltd. All rights reserved.

Source: Medline

Title: Culturally tailored motivational interviewing interventions in hispanic populations: A systematic review

Citation: Journal of the American Pharmacists Association, March 2012, vol./is. 52/2(209), 1544-3191 (March-April 2012)

Author(s): Krukas A., Kavookjian J.

Language: English

Abstract: Objective: Motivational Interviewing (MI) is an evidence-based communication skills set that has been effective in helping patients change health behaviors. The objective of this study was to conduct a modified Cochrane systematic review of the literature to identify evidence and gaps for culturally tailored MI intervention studies among Hispanic populations for whom prevalence of major chronic conditions is significant. Methods: Using a modified Cochrane systematic approach, a search was conducted using several relevant databases (Academic Search Premier, ALT Healthwatch, CINAHL, Health Source for Consumer Education, Health Source for Nursing/Academic Education, MasterFILE Premier, MEDLINE, PsycARTICLES, and PsycINFO), and primary search terms (motivational interviewing AND Latino OR Spanish Speaking OR Hispanic). Additional criteria for article retention included intervention studies in adult or adolescent patient populations, written in the English language, published between 1985 and 2011. A multi-tiered approach was applied by two researchers for retention decisions, based on titles, abstracts, and full-text articles. Results: A total of 34 articles were initially identified, of which 17 were excluded due to duplication, not an intervention study, or unrelated. Retained studies varied in structure and context (included drinking, antidepressant use, weight, asthma/smoking, anxiety, hypertension, substance abuse, diabetes, HIV, and anger management). Results describe patient characteristics, MI training of interventionists, intervention protocol, cultural sensitivity of intervention, target outcome(s), and results. Conclusion: MI is an evidence-based strategy set that may require cultural tailoring for effective use within specific minority populations. This systematic review suggests that heterogeneity of studies makes comparisons for an optimal protocol challenging: general findings suggest that cultural tailoring of interventions is important for those who may be talking with Hispanic patients about health behaviors needed to achieve optimal outcomes.

Publication Type: Journal: Conference Abstract

Source: EMBASE
2.3 Meta-Analysis

Title: Effect of motivational interviewing on self-management in patients with type 2 diabetes mellitus: A meta-analysis
Citation: International Journal of Nursing Sciences, 2014, vol./is. 1/3(291-297), 2352-0132 (2014)
Author(s): Song D., Xu T.-Z., Sun Q.-H.
Language: English
Abstract: Objective: The objective of this meta-analysis was to evaluate the effect of motivational interviewing (MI) on self-management in patients with type 2 diabetes. Methods: Randomised controlled trials that assessed the effects of MI on self-management and HbA1c levels in patients with type 2 diabetes were systematically reviewed using multiple electronic databases. Weighted mean differences with 95% confidence intervals were calculated for continuous data. Results: Ten trials were included in this meta-analysis. The self-management ability of patients with type 2 diabetes who underwent MI was significantly better than that of patients in the control group (WMD, 2.37; 95% CI, 1.77e2.98; p < 0.00001). Subgroup analysis showed that short-term MI (<6 months) resulted in a significant decrease in the HbA1c level (p < 0.05) but that this advantage was not present for relatively long-term MI (>6 months) (p > 0.05). Conclusions: MI was associated with improved self-management abilities among patients with type 2 diabetes, and short-term MI (>6 months) effectively decreased the HbA1c level. The effect of long-term MI (>6 months) on the HbA1c level remains uncertain. Large-scale, higher-quality randomised controlled trials are needed to confirm the present findings.
Publication Type: Journal: Article
Source: EMBASE

3 Literature Reviews & Grey Literature

Title: Motivational interviewing as an instrument to promote physical activity and dietary adherence among people with diabetes: literature review.
Citation: Nure Investigación, 2007, vol./is. /29(0-0), 1697218X
Author(s): Leyva-Moral JM
Language: Spanish
Abstract: Abstract: Motivational Interviewing is a technique which is used to get behaviour changes and whose efficacy has been highly proved in areas such as smoking cessation or alcoholism. This review pretends to ascertain if Motivational Interviewing is the most effective strategy to increase adherence to physical activity and dietary modification programs among people with type 2 diabetes. Method: An exhaustive scientific national and international literature review was done. The following electronic databases were used: PsycINFO, PubMed, OVID Full Text, CINAHL, CUIDEN, IBUCOS, CompluDoc y ENGFISPO. The search strategy was limited to articles published between 1995 and 2005. Results: Eleven studies were included. Motivational Interviewing appears as a useful technique to increase adherence to physical activity and diet programs in people with type 2 diabetes. However, an in-depth analysis of the studies included in this literature review shows
important methodological flows which could have caused some bias. The author affirms that Motivational Interviewing is just a useful technique but no more useful as other behavioural techniques used nowadays. There are not enough strong scientific evidences to assure the standardization of Motivational Interviewing in the field of diabetic education.

**Publication Type:** Academic Journal

**Source:** CINAHL

**Signal:** Motivational interviewing may encourage healthy eating in people with type 2 diabetes

**Source:** NIHR Dissemination Centre

**Publication date:** 15 March 2016

**Abstract**

A motivational communication approach may help people with type 2 diabetes eat more healthily, but may be no better than usual care for changing other behaviours or improving health. The technique involves exploring any ambivalence to change, listening and reflecting non-judgmental questions back to people, alongside helping them to set agendas for changing habits and behaviours. In this review, a range of different professionals conducted the interviews. This review of 14 trials looked at a range of outcomes and showed a consistent impact of motivational interviewing on healthy eating. Compared with usual care, no difference was found on measures of physical activity (six trials), alcohol reduction (two trials), stopping smoking (three trials), waist circumference (two trials) or cholesterol levels (five trials). Usual care was not described and trial differences meant that results could not be pooled in a meta-analysis. Caution is required in the interpretation of this study as multiple outcomes were assessed but there was a tendency to report only positive findings. The size of any effect was not assessed in any way or synthesised by meta-analysis for example, so it is hard to tell if the change in behaviour led to useful changes in risk factors such as weight or blood sugar levels. Motivational interviewing is not a single intervention; it includes different specific techniques to encourage behaviour change and does require training and time for delivery. For commissioners, it is worth noting that the interventions tested were intensive, requiring between one and five 30 to 90 minute sessions and economic analysis was not undertaken. This evidence doesn’t support the wide adoption of motivational interviewing, as described in this review because it is not known yet why many studies showed no effect. Next steps could be to identify which components of the interventions worked, how intensive they need to be and what the impact of prior skill and training in delivery of the intervention was.

**Title:** Effectiveness of motivational interviewing to improve chronic condition self-management: what does the research show us?

**Citation:** Home healthcare nurse, Jan 2014, vol. 32, no. 1, p. 56-63, 1539-0713 (January 2014)

**Author(s):** Coyne, Noreen, Correnti, Deborah

**Abstract:** Motivational interviewing (MI) as a strategy to promote behavior change has its roots in the addiction field. In recent years there is growing use of MI as an intervention to help patients with diet, physical activity, and other lifestyle changes. This counseling approach initially developed by
clinical psychologists is a goal-oriented, client-centered counseling style for eliciting behavior change by helping clients to explore and resolve ambivalence (). MI is appealing because it is seen as a practical front-line intervention that is concordant with patient-centered care that is being called for in the health service environment. This column profiles four published research/synthesis articles describing experiences by different groups in implementing MI strategies. As you will read, results from trials evaluating MI on patient outcomes are mixed and there continues to be gaps in the evidence on how to best implement MI and on which patients will most likely benefit. Even with outstanding questions, MI shows promise in the very challenging area of promoting behavior change and warrants continued investigation. Interested readers are encouraged to read the original articles for more details.

Source: Medline

### 4 Primary Literature

#### 4.1 Literature Search Highlights

A ‘traditional’ literature search has been undertaken using a variety of specialist online databases. This search is the professionally selected most relevant results that have been narrowed from the original search results. Their abstracts are below, preceded by a search breakdown, and where applicable the search ‘PICO’. The original search has been saved and is available upon request. To view any of the abstracts in full text, you will require an NHS Athens account where noted or contact me.

#### 4.1.1 Search Summary

**4.1.1.1 Databases**
- Medline
- TRIP
- HMIC
- Psych-Ingo
- Cinahl
- Embase

**4.1.1.2 Key Terms**
- Diabetes, Type 1 Diabetes, Type 2 Diabetes
- Motivational Interviewing

**4.1.1.3 Limits**
- 2005-Current
- English Language Only
- ‘Western Results’ Only

#### 4.2 Evaluation Studies

**Title:** Motivational interviewing to improve diabetes outcomes in African Americans adults with diabetes.
The purpose of this study was to determine the effect of a motivational interviewing intervention (MII) on regimen adherence and diabetes markers among African Americans with diabetes. Sixty-two participants were assigned to the usual care (UC; n = 36) or MII (n = 26) groups. UC participants received the usual clinic care. MII participants received a maximum of six motivational interviewing (MI) sessions over 3 months. Outcome variables were obtained at baseline and 3-month follow-up. Data were obtained using medical records, self-reports, and glucose monitor and accelerometer print-outs. MII significantly increased the odds of participants adhering to recommended physical activity level (66.7% vs. 38.8%, odds ratio = 2.92, 95% confidence interval = [1.6, 14.3], p = .018) and significantly decreased glucose levels (p = .043) and body mass index (p = .046) over time when compared with UC. Findings support using MI as an intervention for improving health outcomes and regimen adherence rates among the study population.

Citation: Western Journal of Nursing Research, May 2015, vol. 37, no. 5, p. 566-580, 0193-9459 (May 2015)
Author(s): Chlebowy, Diane Orr, El-Mallakh, Peggy, Myers, John, Kubiak, Nancy, Cloud, Richard, Wall, Mary Patricia
Abstract: The purpose of this study was to determine the effect of a motivational interviewing intervention (MII) on regimen adherence and diabetes markers among African Americans with diabetes. Sixty-two participants were assigned to the usual care (UC; n = 36) or MII (n = 26) groups. UC participants received the usual clinic care. MII participants received a maximum of six motivational interviewing (MI) sessions over 3 months. Outcome variables were obtained at baseline and 3-month follow-up. Data were obtained using medical records, self-reports, and glucose monitor and accelerometer print-outs. MII significantly increased the odds of participants adhering to recommended physical activity level (66.7% vs. 38.8%, odds ratio = 2.92, 95% confidence interval = [1.6, 14.3], p = .018) and significantly decreased glucose levels (p = .043) and body mass index (p = .046) over time when compared with UC. Findings support using MI as an intervention for improving health outcomes and regimen adherence rates among the study population. (PsycINFO Database Record (c) 2016 APA, all rights reserved) (journal abstract)
Source: PsycInfo

Title: Motivational interviewing-based interventions and diabetes mellitus.
Citation: British Journal of Nursing, 2014, vol./is. 23/1(8-14), 09660461
Author(s): Mulimba, Ashlee A. Clifford, Byron-Daniel, James
Language: English
Abstract: This review assesses whether motivational interviewing (MI)-based interventions are effective at improving health behaviours in adults with diabetes. Electronic databases were searched for articles that investigated the use of MI and diabetes self-management between 1966 and March 2010. In total, 464 titles were found; after duplicates were removed, 112 studies remained. Of these, 24 abstracts were identified as potentially relevant. No studies were excluded on the basis of their methodology. By use of a data extraction sheet, eight studies were identified as relevant once full articles were examined. Positive results in health-behaviour improvement were reported in four studies. These were: reduced smoking, improved blood glucose, improved diet and weight management. Studies varied in quality; four were methodologically weak owing to small sample sizes, lack of clarity of scoring measurement tools and/or limited use of valid measurements, and reported inclusion/exclusion criteria. In conclusion, MI cannot be recommended as an evidenced-based approach to diabetes self-management.
Publication Type: Academic Journal
Source: CINAHL
Full Text: Available from EBSCOhost in British Journal of Nursing

Title: Promoting nurse interventionist fidelity to motivational interviewing in a diabetes self-care intervention.
Citation: Research in Nursing & Health, Jun 2012, vol. 35, no. 3, p. 289-300, 0160-6891 (Jun 2012)
Author(s): El-Mallakh, Peggy, Chlebowy, Diane Orr, Wall, Mary Patricia, Myers, John A., Cloud, Richard N.
Abstract: We describe interventionist training procedures for a pilot intervention study that tested the effects of a nurse-delivered Motivational Interviewing (MI) intervention on diabetes self-care among adults diagnosed with type 2 diabetes mellitus. It reports on findings from MI fidelity assessments. Training consisted of didactic workshops plus practicum. Fidelity of MI was assessed using the MI Treatment Integrity (MITI) Scale. Fidelity assessments were conducted on 18 (25%)
Title: Does a motivational interviewing intervention delivered by diabetes educators improve HbA1c for poorly controlled type 2 diabetes patients?

Citation: Diabetes, 2010(no pagination), 0012-1797 (2010)

Author(s): Welch G., Zagarins S., Shayne R., Garb J.

Language: English

Abstract: Results: We conducted an RCT of a 6-month diabetes self management education (DSME) intervention for n=234 poorly controlled (HbA1c >7.5%) type 2 diabetes (T2DM) pts. The intervention blended behavior change counseling (Motivational Interviewing, MI) with diabetes education. We trained 2 CDEs to deliver an MI intervention protocol with and without use of a computerized patient self-management assessment tool. T2DM pts. in the Non-MI group received standard diabetes education or standard education with use of the computerized patient assessment tool. Results of the MI training (see Table) based on audiotape and independent coding of education sessions showed MI trained CDEs achieved significantly higher MI skills than Non-MI on key MI counseling variables and approached overall competence level (MI Spirit) recommended by the Motivational Interviewing Network of Trainers. However, the complete MI method was not demonstrated (e.g., minimal educator use of deeper reflections or educator exploration of emotional issues raised by pts). Intervention results showed mean HbA1c change at 6 mo. was -0.4% for the MI group vs. -0.8% for the Non-MI group (p=0.04, t=2.10). Significant mediators of HbA1c change for the total pt. group were self care behaviors (diet, blood glucose monitoring, medications, exercise), (SCI-R; p=0.015) and diabetes distress (PAID; p<0.001), but these mediators did not explain differences in HbA1c change between MI and Non-MI groups. Depression (CES-D) and 2 key MI constructs (pt. perceptions of the importance of behavior change and self efficacy that behavior change could be achieved) were not significant for any between group comparisons. (Table Presented).

Publication Type: Journal: Conference Abstract

Source: EMBASE

Full Text: Available from ProQuest in Diabetes

Available from Highwire Press in Diabetes
tapes. Subsequently, fifteen % of tapes were randomly selected from patients who had finished the study. A coding sheet with sixteen topical categories that routinely occurred during visits was constructed and the MI RNs coded each others tapes by checking the category being discussed on the tape every five minutes. At the end of this process, the team collapsed categories that seemed redundant, which resulted in five discrete categories. Next, checks were summed and frequency analysis and correlation statistics run using SPSS vs. 17.0. Results: The topics most often discussed during an MI visit (i.e. negotiated by the patient in a typical agenda setting style) were: Education about Diabetes (M=8.01), Emotional Support/Rapport Building/Mental Health/Stress (M=7.99), Assessment/ Monitoring/Lab work (M=7.07), Action Planning & Behavior Change (M=4.73), and Navigating Health System & Connecting with Resources (M=1.22). Sixty percent of the time the MI RNs discussed the same topics although the demographics of their patient load were extremely different. Conclusion: This study suggests that MI can be used improve lifestyle behaviors for chronic conditions in medical situations. Allowing the patient to set the agenda for discussion uncovered a strong need for education and emotional support to augment usual primary care. Evaluation of patient responses after the two year study showed that patients benefited from working with the MI RN and did not want the support to end.

**Publication Type:** Journal: Conference Abstract  
**Source:** EMBASE  
**Full Text:**  
Available from *ProQuest* in *Diabetes*  
Available from *ProQuest* in *Diabetes*  
Available from *Highwire Press* in *Diabetes*

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**Title:** General practitioners trained in motivational interviewing can positively affect the attitude to behaviour change in people with type 2 diabetes  
**Citation:** Scandinavian Journal of Primary Health Care, September 2009, vol./is. 27/3(172-179), 0281-3432;1502-7724 (September 2009)  
**Author(s):** Rubak S., Sandbaek A., Lauritzen T., Borch-Johnsen K., Christensen B.  
**Language:** English  
**Abstract:** Objective. To examine whether training GPs in motivational interviewing (MI) can improve type 2 diabetic patients' (1) understanding of diabetes, (2) beliefs regarding prevention and treatment, and (3) motivation for behaviour change. Methods. A randomized controlled trial including 65 GPs and 265 type 2 diabetic patients. The GPs were randomized in two groups, one with and one without MI training. Both groups received training in target-driven intensive treatment of type 2 diabetic patients. The intervention was a 1 1/2-day residential course in MI with -day follow-up twice during the first year. The patient data stemmed from previously validated questionnaires. Main outcome measures. The Health Care Climates Questionnaire assesses the patient-doctor relationship and type of counselling. The Treatment Self-Regulation Questionnaire assesses the extent of various self-care activities related to type 2 diabetes. Results. The response rate to our questionnaires was 87%. Patients in the intervention group were significantly more autonomous and motivated in their inclination to change behaviour after one year compared with the patients from the control group. Patients in the intervention group were also significantly more conscious of the importance of controlling their diabetes, and had a significantly better understanding of the possibility of preventing complications. Conclusion. MI improved type 2 patients' understanding of diabetes, their beliefs regarding treatment aspects, their contemplation on and motivation for behaviour change. Whether our results can be sustained long term and are clinically relevant in terms of changes in risk profile advocates further research. &##xa9; 2009 Informa UK Ltd.
Motivational interviewing and people with diabetes.

Citation: European Diabetes Nursing, 2011, vol./is. 8/2(68-68), 15517853

Author(s): Hunt, J

Language: English

Abstract: Motivational interviewing (MI) is an evidence-based method of counselling which is used to enhance intrinsic motivation for change by exploring and resolving ambivalence. Research has shown that it is effective when used to treat substance abuse and a number of other health behaviours. It has also emerged as a useful technique when used for patients with chronic illness, such as diabetes. The present paper serves to provide an overview of the theory and principles of MI practice and to evaluate its effectiveness as an intervention for patients with diabetes. The results of several recent randomised controlled trials are outlined and the mixed findings suggest that MI can be used as an effective way of enhancing diabetes treatment but that it appears most effective when targeted to one specific behavioural outcome (such as weight loss or dietary adherence). Barriers still exist which restrict its effectiveness and therefore the successful implementation of MI into health care settings. Key issues are discussed such as the importance of standardised training and ensuring treatment integrity. Further research is needed to establish the active underlying mechanisms which are driving change and to ascertain the longer-term benefits of MI to both patients and practitioners. This would help facilitate the successful integration of MI skills and/or practice into routine diabetes care. Copyright © 2011 FEND. Published by John Wiley & Sons, Ltd.
Methods
The study is an RCT with follow-up measurements after 12 and 24 months. Thirty-three nurses and 584 patients participated. Nurses in the experimental condition received the training; control group nurses were trained after the study. The training consisted of two training sessions, two follow-up meetings, written feedback and three direct feedback sessions. Basic MI-principles and techniques and an MI-based counselling protocol were addressed.

Results
Results indicated disadvantageous effects on fat intake and HDL and advantageous effects on chance locus of control and knowledge. No effects were found on vegetable or fruit intake, physical activity, HbA1c, weight, blood pressure, total cholesterol, LDL, triglycerides, health care climate, quality of life or on self-efficacy.

Conclusions
As in other MI studies, mixed results were found. It would be premature to recommend dissemination of MI in diabetes care. More studies are needed in real-world settings with health care professionals of the field instead of intensively trained MI interventionists. Knowledge should be gained about adequate training and factors contributing to the implementation of MI in daily practice.

4.3 Randomised Control Trials

Title: A randomized controlled trial to provide adherence information and motivational interviewing to improve diabetes and lipid control.

Citation: The Diabetes Educator, Feb 2015, vol. 41, no. 1, p. 136-146, 0145-7217 (Feb 2015)

Author(s): Pladevall, Manel, Divine, George, Wells, Karen E., Resnicow, Ken, Williams, L. Keoki

Abstract: Purpose: The purpose of this study was to assess whether providing medication adherence information with or without motivational interviewing improves diabetes and lipid control. Methods: Study participants were adult members of a health system in southeast Michigan, were using both oral diabetes and lipid-lowering medications, and had glycated hemoglobin (A1C) or low-density lipoprotein cholesterol (LDL-C) levels not at goal. Participants were randomly assigned to receive usual care (UC), n = 567; have medication adherence information (AI) provided to their physician, n = 569; or have AI and receive motivational interviewing (MI) though trained staff (AI + MI), n = 556. Primary outcomes were A1C and LDL-C levels at 18 months post randomization. Results: Primary outcomes were not significantly different between patients in the AI or AI + MI study arms when compared with UC. Similarly, neither oral diabetes nor lipid-lowering medication adherence was significantly different between groups. Patient participation in the AI + MI arm was low and limit the interpretation of the study results, but post hoc analysis of the AI + MI study arm showed that the number of MI sessions received was positively associated with only oral diabetes medication adherence. Conclusion: Neither AI nor MI significantly improved diabetes and lipid control when compared with UC. Moreover, patient participation appeared to be a particular barrier for MI.

Source: PsycINFO

A randomized controlled trial to provide adherence information and motivational interviewing to improve diabetes and lipid control.

Abstract
PURPOSE:
The purpose of this study was to assess whether providing medication adherence information with or without motivational interviewing improves diabetes and lipid control.

METHODS:
Study participants were adult members of a health system in southeast Michigan, were using both oral diabetes and lipid-lowering medications, and had glycated hemoglobin (A1C) or low-density lipoprotein cholesterol (LDL-C) levels not at goal.

Acknowledgments:
This project was supported by Grant Number 336082 from the National Cancer Institute.
The document contains a variety of medical and research-related text. It seems to be discussing studies on diabetes control, lipoprotein cholesterol (LDL-C) levels, and motivational interviewing as a method to improve diabetes and lipid control. The text appears to be extracted from a larger document or article, possibly discussing the outcomes of randomized clinical trials involving diabetes management.

Here is a summary in plain text:

**Motivational interviewing delivered by diabetes educators: Does it improve blood glucose control among poorly controlled type 2 diabetes patients**

**Abstract**

**Aim**
To determine whether glycemic control is improved when motivational interviewing (MI), a patient-centered behavior change strategy, is used with diabetes self management education (DSME) as compared to DSME alone.

**Methods**
Poorly controlled type 2 diabetes (T2DM) patients (n = 234) were randomized into 4 groups: MI + DSME or DSME alone, with or without use of a computerized summary of patient self management barriers. We compared HbA1c changes between groups at 6 months and investigated mediators of HbA1c change.

**Results**
Study patients attended the majority of the four intervention visits (mean 3.4), but drop-out rate was high at follow-up research visits (35%). Multiple regression showed that groups receiving MI had a mean change in HbA1c that was significantly lower (less improved) than those not receiving MI (t = 2.10; p = 0.037). Mediators of HbA1c change for the total group were diabetes self-care behaviors and diabetes distress; no between-group differences were found.

**Conclusions**
DSME improved blood glucose control, underlining its benefit for T2DM management. However, MI + DSME was less effective than DSME alone. Overall, weak support was found for the clinical utility of MI in the management of T2DM delivered by diabetes educators.
groups. Medication adherence was close to 100% within both treatment groups. GPs in the intervention group did not use more than an average of 1.7 out of three possible MI consultations. 

**Conclusion.** The study found no effect of MI on metabolic status or on adherence of medication in people with screen detected type 2 diabetes. However, there was a significantly improved metabolic status and excellent medication adherence after one year within both study groups. An explanation may be that GPs in the control group may have taken up core elements of MI, and that GPs trained in MI used less than two out of three planned MI consultations. The five-year follow-up of this study will reveal whether MI has an effect over a longer period.

**The effect of motivational interviewing on glycaemic control and perceived competence of diabetes self-management in patients with type 1 and type 2 diabetes mellitus after attending a group education programme: a randomised controlled trial**

**Abstract**

**Aims/hypothesis**

The aim of this study was to measure the efficacy of motivational interviewing (MI) compared with usual care on changes in glycaemic control and competence of diabetes self-management in patients with diabetes mellitus.

**Methods**

Patients were eligible if they had type 1 or 2 diabetes mellitus, were over 18 years of age and had participated in a 4 day group education programme offered at a diabetes clinic at a university hospital in Denmark. Exclusion criteria included pregnancy, severe debilitating disease and cognitive deficit. Out of 469 patients who attended the group education programme, 349 patients were randomised to either a usual care control group or an intervention group, which received up to five individual counselling sessions in 1 year based on MI, in addition to usual care. A randomised parallel design was used and open-label allocation was done by random permuted blocks, with allocation concealment by sequentially numbered, sealed, opaque envelopes. The primary outcome was glycated haemoglobin (HbA1c). Analysis regarding measurements of glycated haemoglobin (HbA1c) and competence of self-management (using the Problem Areas in Diabetes Scale [PAID] and Perceived Competence for Diabetes Scale [PCDS]) was based on 298 participants followed for a 24 month period. Data were collected at the Department of Endocrinology at Odense University Hospital. Our hypotheses were that MI could: (1) reduce HbA1c levels; (2) increase self-efficacy; and (3) increase diabetes self-care, compared with usual care.

**Results**

Out of the 176 included in the control group and 173 in the intervention group, 153 and 145 were analysed in the groups, respectively. When using the baseline value as covariate there were no significant differences in change score between the two study groups with regard to mean level of HbA1c (0.131, \( p = 0.221 \)), PAID scores (−1.793, \( p = 0.191 \)) or PCDS scores (0.017, \( p = 0.903 \)) at the 24 month follow-up, using a mixed effects regression model. The patients in the intervention group showed significantly higher levels of perceived competence in dealing with diabetes compared with the control group (mean change score = −0.387, \( p = 0.002 \)) following 1 year of intervention.

**Conclusion/interpretation**

We were unable to demonstrate any benefit, over or above usual care, of MI in patients with diabetes who have just completed a diabetes education programme, and who have well-regulated diabetes.

**Motivational interviewing may encourage healthy eating in people with type 2 diabetes**

OBJECTIVES: The management of type 2 diabetes (T2D) requires complex behavior changes and treatment regimens to achieve optimal outcomes. Interventions including motivational interviewing
(MI) have been explored to help patients achieve behavior change and outcomes; this study aimed to explore evidence and gaps in the literature for MI interventions and outcomes in adults with T2D. METHODS: A modified Cochrane method structured the search strategy among databases including MEDLINE, CINAHL, PsycINFO, and others. Inclusion criteria included randomized controlled trials that assessed the effects of MI on behavior change outcomes and resultant clinical outcomes in adults with T2D. RESULTS: Of the initial 159 studies identified, 14 were eligible for retention. Behavior targets in the retained studies included dietary changes, physical activity, smoking cessation, and alcohol reduction. MI had significant impact on some dietary behaviors and on weight loss. MI intervention structures were heterogeneous across studies; fidelity assessment was infrequent. CONCLUSION: The effects of MI interventions on outcomes in T2D showed promising results for dietary behaviors. Clinical change outcomes from MI-based interventions were most favorable for weight management in T2D. PRACTICE IMPLICATIONS: Behavior-specific MI interventions may positively influence study outcomes. Assessment of MI intervention fidelity will enhance treatment integrity and claims for validity.

Title: No identifiable Hb1Ac or lifestyle change after a comprehensive diabetes programme including motivational interviewing: a cluster randomised trial.
Citation: Scandinavian journal of primary health care, Jun 2013, vol. 31, no. 2, p. 119-127, 1502-7724 (June 2013)
Author(s): Jansink, Renate, Braspenning, Jozé, Keizer, Ellen, van der Weijden, Trudy, Elwyn, Glyn, Grol, Richard
Abstract: To study the effectiveness of a comprehensive diabetes programme in general practice that integrates patient-centred lifestyle counselling into structured diabetes care. Design and setting. Cluster randomised trial in general practices. Nurse-led structured diabetes care with a protocol, record keeping, reminders, and feedback, plus training in motivational interviewing and agenda setting. Primary care nurses in 58 general practices and their 940 type 2 diabetes patients with an HbA1c concentration above 7%, and a body mass index (BMI) above 25 kg/m². Main outcome measures. HbA1c, diet, and physical activity (medical records and patient questionnaires). Multilevel linear and logistic regression analyses adjusted for baseline outcomes showed that despite active nurse participation in the intervention, the comprehensive programme was no more effective than usual care after 14 months, as shown by HbA1c levels (difference between groups = 0.13; CI 20.8-0.35) and diet (fat (difference between groups = 0.19; CI 20.82-1.21); vegetables (difference between groups = 0.10; CI-0.21-0.41); fruit (difference between groups = 20.02; CI 20.26-0.22)), and physical activity (difference between groups = 21.15; CI 212.26-9.97), or any of the other measures of clinical parameters, patient’s readiness to change, or quality of life. A comprehensive programme that integrated lifestyle counselling based on motivational interviewing principles integrated into structured diabetes care did not alter HbA1c or the lifestyle related to diet and physical activity. We thus question the impact of motivational interviewing in terms of its ability to improve routine diabetes care in general practice.
Source: Medline
Full Text: Available from Taylor & Francis in Scandinavian Journal of Primary Health Care
Available from EBSCOhost in Scandinavian Journal of Primary Health Care

Title: Effectiveness of a training course for general practice nurses in motivation support in type 2 diabetes care: a cluster-randomised trial.
Citation: PloS one, Jan 2014, vol. 9, no. 5, p. e96683., 1932-6203 (2014)
Author(s): Juul, Lise, Maindal, Helle T, Zoffmann, Vibeke, Frydenberg, Morten, Sandbaek, Annelli
Abstract: Type 2 diabetes is a common metabolic disease with the potential for prevention of complications. The prevention requires a high level of lasting actions from the patients, which may be burdensome. The aim of this trial was to evaluate the effectiveness of a training course for general practice nurses in motivation support at 18 months follow-up in the affiliated type 2 diabetes population. Forty general practices with nurse-led diabetes consultations from the area of Aarhus, Denmark were randomised 1:1 to either intervention or usual practice. Intervention practices were offered a 16-hour Self-determination theory-based course including communication training for general practice nurses delivered over 10 months. The affiliated diabetes populations (aged 40-74 years) were identified from registers (intervention n=2,005; usual n=2,029). Primary outcomes were register-based glycated haemoglobin (HbA1c), total cholesterol levels, and well-being measured by the Problem Areas In Diabetes scale (PAID) and the mental component summary score, SF12 (SF12, mcs). Intention-to-treat analyses were performed. Predefined subgroups analyses were performed. The differences between the intervention- and the control practices' mean HbA1c and total cholesterol at follow-up adjusted for baseline values and clustering were respectively: -0.02% points (95% CI: -0.11 to 0.07; p: 0.67); 0.08 mmol/l (95% CI: 0.01 to 0.15; p: 0.02). Differences in median scores adjusted for clustering were for PAID: 1.25; p=0.31 and SF12, mcs: 0.99; p=0.15. Women in intervention practices differed from women in usual practices on mean HbA1c: -0.12% points (-0.23 to -0.02; p=0.02) and SF12, mcs: 2.6; p=0.01. Offering a training course for general practice nurses in applying the Self-determination theory in current type 2 diabetes care had no effect compared with usual practice measured by HbA1c and total cholesterol levels and the well-being at 18 months of follow-up in a comprehensive register-based diabetes population. Subgroup analyses suggested a possible effect in women, which deserves further attention. ClinicalTrials.gov (Identifier NCT01187069).

Source: Medline

Full Text:
Available from National Library of Medicine in PLoS ONE
Available from ProQuest in PLoS One
Title: Exploring the potential of telephone health and wellness coaching intervention for supporting behaviour change in adults with diabetes.
Citation: Journal of Diabetes Nursing, 2015, vol./is. 19/10(394-400), 13681109
Author(s): McGloin, Helen, Timmins, Fiona, Coates, Vivien, Boore, Jennifer
Language: English
Publication Type: Academic Journal
Source: CINAHL

Title: Motivational interviewing in diabetes care.
Author(s): Steinberg, Marc P., Miller, William R.
Abstract: People with diabetes often struggle to make healthy choices and stay on top of managing their illness. Filling a vital need, this is the first book to focus on the use of motivational interviewing (MI) in diabetes care. The uniquely qualified authors—physician Marc P. Steinberg has devoted much of his career to diabetes care, and renowned clinical psychologist William R. Miller is the co-developer of MI—present proven counseling techniques that can make any conversation with a patient more efficacious and motivating. Numerous sample dialogues illustrate specific ways to elicit patients’ strengths and help them overcome barriers to change in such areas as eating habits, physical activity, medication use, insulin treatment, substance abuse and psychological issues, and more. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(cover)
Source: PsycINFO

Title: Sustained effects of a nurse coaching intervention via telehealth to improve health behavior change in diabetes.
Citation: Telemedicine journal and e-health : the official journal of the American Telemedicine Association, Sep 2014, vol. 20, no. 9, p. 828-834, 1556-3669 (September 2014)
Author(s): Young, Heather, Miyamoto, Sheridan, Ward, Deborah, Dharmar, Madan, Tang-Feldman, Yajarayma, Berglund, Lars
Abstract: Diabetes educators and self-management programs are scarce in rural communities, where diabetes is the third highest-ranking health concern. The goal of this study was to evaluate the benefits of nurse telehealth coaching for persons with diabetes living in rural communities through a person-centered approach using motivational interviewing (MI) techniques. A randomized experimental study design was used to assign participants to receive either nurse telehealth coaching for five sessions (intervention group) or usual care (control group). Outcomes were measured in both groups using the Diabetes Empowerment Scale (DES), SF-12, and satisfaction surveys. Mean scores for each outcome were compared at baseline and at the 9-month follow-up for both groups using a Student’s t test. We also evaluated the change from baseline by estimating the difference in differences (pre- and postintervention) using regression methods. Among the 101 participants included in the analysis, 51 received nurse telehealth coaching, and 50 received usual care. We found significantly higher self-efficacy scores in the intervention group compared with the control group based on the DES at 9 months (4.03 versus 3.64, respectively; p<0.05) and the difference in difference estimation (0.42; p<0.05). The nurse MI/telehealth coaching model used in this study shows promise as an effective intervention for diabetes self-management in rural communities. The sustained effect on outcomes observed in the intervention group suggests that this model could be a feasible intervention for long-term behavioral change among persons living with chronic disease in rural communities.
Source: Medline

Title: Using motivational interviewing to engage adolescents and young adults with diabetes
Citation: Practical Diabetes, July 2014, vol./is. 31/6(252-256), 2047-2897;2047-2900 (July-August 2014)
Author(s): Christie D., Channon S.
Language: English
Abstract: For young people trying to keep diabetes under control, the behaviors can appear simple; e.g., following a healthy diet, regular self-monitoring, and exercise. However, clinicians and parents are often frustrated by the gap between the ‘ideal’ and ‘reality’. Young people have conflicting motivations and pressures; a change in behavior feels too big, the rewards too distant, the personal or financial costs too high, or maybe it was never their idea to change in the first place. Attention has turned to the potential of motivational interviewing in the pediatric setting, particularly with the adolescent age group. Motivational interviewing is a directive person-centered therapeutic style that invites individuals to explore ambivalence and find solutions that fit for them if they identify the situation as a problem. Early trials support the use of motivational interviewing in type 1 diabetes in adolescents, either as a stand-alone treatment or as an adjunct to other treatments where it can be a method of engaging patients in the programmes thus enabling the programmes to be more effective. This paper describes the core principles and key skills of motivational interviewing and offers clinical examples with young people and parents living with diabetes. Copyright © 2014 John Wiley & Sons.
Publication Type: Journal: Article
Source: EMBASE

Title: Peer Support for Achieving Independence in Diabetes (Peer-AID): Design, methods and baseline characteristics of a randomized controlled trial of community health worker assisted diabetes self-management support
Citation: Contemporary Clinical Trials, July 2014, vol./is. 38/2(361-369), 1551-7144;1559-2030 (July 2014)

Language: English
Abstract: Background & objectives: Community health workers (CHWs) may be an important mechanism to provide diabetes self-management to disadvantaged populations. We describe the design and baseline results of a trial evaluating a home-based CHW intervention. Methods & research design: Peer Support for Achieving Independence in Diabetes (Peer-AID) is a randomized, controlled trial evaluating a home-based CHW-delivered diabetes self-management intervention versus usual care. The study recruited participants from 3 health systems. Change in A1c measured at 12 months is the primary outcome. Changes in blood pressure, lipids, health care utilization, health-related quality of life, self-efficacy and diabetes self-management behaviors at 12 months are secondary outcomes. Results: A total of 1438 patients were identified by a medical record review as potentially eligible, 445 patients were screened by telephone for eligibility and 287 were randomized. Groups were comparable at baseline on socio-demographic and clinical characteristics. All participants were low-income and were from diverse racial and ethnic backgrounds. The mean A1c was 8.9%, mean BMI was above the obese range, and non-adherence to diabetes medications was high. The cohort had high rates of co-morbid disease and low self-reported health status. Although one-third reported no health insurance, the mean number of visits to a physician in the past year was 5.7. Trial results are pending. Conclusions: Peer-AID recruited and enrolled a diverse group of low income participants with poorly controlled type 2 diabetes and delivered a home-based diabetes self-management program. If effective, replication of the Peer-AID intervention in community based settings could contribute to improved control of diabetes in vulnerable populations. © 2014.
Publication Type: Journal: Article
Source: EMBASE
Title: The potential for motivational interviewing to improve outcomes in the management of diabetes and obesity in paediatric and adult populations: a clinical review.

Citation: Diabetes, obesity & metabolism, May 2014, vol. 16, no. 5, p. 381-387, 1463-1326 (May 2014)

Author(s): Christie, D, Channon, S

Abstract: Having good intentions to engage in healthy behaviours, to change our lives in a positive direction and make substantial, lasting changes may not always translate into actions or behaviour that is maintained. Motivational Interviewing is a directive person-centred approach designed to explore ambivalence and activate motivation for change [Miller WR, Rollnick S. Motivational Interviewing: Preparing People to Change Addictive Behaviour. London: Guilford Press, 1991]. A key component of a motivational interviewing conversation is to acknowledge that clients have every right to make no change. It uses a guiding communication style which invites people to consider their own situation and find their own solutions to situations that they identify as problematic that are preventing change. Motivational Interviewing was first introduced in adult health addiction services in the early 1980s. It has developed in the physical health specialties, and in the last 20 years or so attention has turned to the potential of Motivational Interviewing in the paediatric setting and the challenges of using it in families with children at differing ages and developmental stages. This article summarizes studies published from 2006 to 2011 of Motivational Interviewing in individuals across the lifespan with type 1 and type 2 diabetes and obesity. ©2013 The Authors. Diabetes, Obesity and Metabolism published by John Wiley & Sons Ltd.

Source: Medline

4.5 Conference Presentations

Title: Promoting diabetes self care: What works and what doesn’t

Citation: Diabetes Technology and Therapeutics, February 2014, vol./is. 16/(A4), 1520-9156 (February 2014)

Author(s): Seley J.J.

Language: English

Abstract: Living with diabetes can be very challenging. We ask patients to perform multiple tasks day after day including monitoring blood glucose at frequent intervals, planning meals, calculating insulin doses based on current blood glucose and carbohydrate intake and balancing meals and medication with physical activity to achieve and maintain glycemic targets. It is no wonder that many patients have difficulty doing all that they are asked to do on a daily basis. Research has shown that knowledge is not enough to promote diabetes self-care and behavior change. A number of behavioral change theories offer the clinician guidance in preparing, motivating and supporting patients in diabetes self-care. These include patient empowerment, health belief model, transtheoretical model and motivational interviewing. The patient empowerment model puts the patient in control of their self-care and promotes informed decision-making. In the health belief model, benefits and barriers to performing self-care behaviors are identified and potential strategies to reduce barriers are generated. The transtheoretical model views behavior change as an ongoing process of stages ranging from precontemplation where the patient is unaware of a problem to maintenance where the patient has the ability to perform self-care over time. Motivational interviewing is an approach where the clinician uses active listening and encourages and supports self-efficacy. With the availability of more and more technological tools to manage diabetes, it is more important than ever to provide comprehensive education and support to our patients in order for them to succeed in controlling their diabetes without compromising quality of life.

Publication Type: Journal: Conference Abstract

Source: EMBASE
Title: Diabetes telehealth intervention comprising blood sugar data, home A1C, care continuity and motivational interviewing to effect behavior change in an adult type 2 diabetes population

Citation: Diabetes Technology and Therapeutics, 2016, vol./is. 18/(A94), 1520-9156 (2016)

Author(s): McMahon K.L.

Language: English

Abstract: Background and Aims: To extend the reach and impact of diabetes education into the patient’s home with increased frequency, personalization and modulation of care intensity informed by high quality remote data collection. Method: A comprehensive program was designed to educate previously enrolled patients in a high cost Medicaid program for adults with type 2 diabetes. Case managers interviewed participants and encouraged them to follow their previously prescribed self-care regimen. Treatment group participants (n=51) were shipped a blood sugar meter, test strips, a cellular enabled data transmission device (GlucoMON-ADMS), and a pedometer. Participants were instructed to connect their meter to the transmission device at least weekly. Multi-color blood sugar pattern management reports were analyzed by case managers who then annotated the chart with encouragement and/or educational comments. Home A1c sample kits were mailed to both arms (control group n=32) at enrollment and every 90 days thereafter. There were no study related clinic visits required at any point. Results: Following initial A1c sample processing, nearly 40% of patients were determined to be below the ADA threshold of 7% indicating good control. Patients whose A1c was between 7% and 8.9% at baseline provided the most interesting results. Statistics Table 3 - Change in A1c - Control vs. Treatment "Group C: baseline A1c 7-8.9" Conclusion: The design of this pilot proved that it is possible to engage patients and expect significantly improved outcomes in a data intensive program without requiring frequent office visits or sending health care workers to the patient’s home. (Figure Presented).

Publication Type: Journal: Conference Abstract

Source: EMBASE

Title: The diabetes listener intervention: Who benefits?

Citation: Diabetic Medicine, March 2015, vol./is. 32/(187), 0742-3071 (March 2015)

Author(s): Sturt J., McCarthy K., Dennick K.

Language: English

Abstract: Aim: To understand who benefits from the Diabetes Listener intervention. Methods: The Diabetes Listener intervention used person centred counselling, motivational interviewing, action planning and information resources in up to 6 x 45 min 1:1 consultations. People struggling to cope with their diabetes were referred by diabetes specialist clinicians. Detailed case notes captured patient demographics and the origin, characteristics and process of resolution, or not, of their struggle. Diabetes distress was assessed at referral. NHS R&D approval was granted to undertake retrospective qualitative analysis of case notes using direct content analysis. Results: Eight-two people were referred leading to 202 Diabetes Listener consultations. Twenty patients attended >4 appointments and 12 attended none. Of 42 individuals attending >2 appointments, 24 had elevated diabetes distress (DD), 13 had likely major depressive disorder and diabetes distress (MDD + DD) and five had general distress unrelated to their diabetes. Individuals with DD alone were able to (re)gain mastery of their diabetes. Conversely individuals with MDD + DD were unable to act upon intentions or achieve expressed goals. Both DD and DD + MDD groups attended an average of three appointments. Mean PAID score was >50 in patients with DD and DD + MDD. Conclusions: Clinicians are skilled at identifying DD through routine consultation and are willing to refer to internal services. Patients presenting with DD + MDD were less able to resolve distress and their ambivalence to behaviour change. People with DD only demonstrated a strong capacity to initiate successive selfmanagement behaviours, in doing so (re)developing a state of mastery over their diabetes.
**Title:** Nurses' experiences of psychological skills training to support self-management in patients with Type 2 diabetes: A qualitative study in primary care

**Citation:** Diabetic Medicine, March 2015, vol./is. 32/(182), 0742-3071 (March 2015)

**Author(s):** Graves H., Garrett C., Amiel S.A., Ismail K., Winkley K.

**Language:** English

**Abstract:** Aims: It is not known whether motivational interviewing skills delivered by practice nurses could improve self-management in people with Type 2 diabetes and suboptimal glycaemic control. We explored nurses' experiences of receiving training and delivering these motivational skills to patients with Type 2 diabetes. Methods: Sixteen nurses from the intervention (n=9) and control (n=7) groups of a cluster randomised controlled trial, the Diabetes-6 (D6) study, were invited to participate. D6 aims to compare the effectiveness of usual diabetes care delivered by primary care nurses trained in six psychological skills with usual diabetes care (attention control) in improving glycaemic control in Type 2 diabetes patients with persistent suboptimal control. Interviews were transcribed verbatim and analysed using a thematic analysis approach. Results: Three key themes were identified. First was the positive and negative impact of D6. Positives included patient empowerment, transferring responsibility to the patient, more time with patients and gaining valuable and transferable skills. Negatives included patient time commitments and capacity to engage. The second theme was professional boundaries, e.g. concerns about overstepping the nurse role, and the third, support from clinicians, e.g. problems integrating therapy sessions into a busy practice and lack of support from general practitioners (GPs). Conclusions: Primary care nurses report that psychological skills training can have a positive impact on patient care. However, if training is to be implemented successfully then input from the whole practice team may be necessary. The support of GPs is particularly crucial. Qualitative evaluation of randomised controlled trials of psychological interventions may reveal intervention mechanisms that hinder or contribute to efficacy and translation.

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**Title:** Motivational interviewing to explore culturally and linguistically diverse people's comorbidity medication self-efficacy.

**Citation:** Journal of Clinical Nursing, May 2015, vol. 24, no. 9-10, p. 1269-1279, 0962-1067 (May 2015)

**Author(s):** Williams, Allison, Manias, Elizabeth, Cross, Wendy, Crawford, Kim

**Abstract:** Aims and objectives: To examine the perceptions of a group of culturally and linguistically diverse participants with the comorbidities of diabetes, chronic kidney disease and cardiovascular disease to determine factors that influence their medication self-efficacy through the use of motivational interviewing. Background: The difficult for culturally and linguistically diverse populations living in English-speaking communities. Few interventions have been tested in culturally and linguistically diverse people to improve their medication self-efficacy. Design: A series of motivational interviewing telephone calls were conducted in the intervention arm of a randomised controlled trial using interpreter services. Methods: Patients with these comorbidities aged ≥ 18 years of age whose preference it was to speak Greek, Italian or Vietnamese were recruited from nephrology outpatient clinics of two Australian metropolitan hospitals in 2009. Results: The average age of the 26 participants was 73.5 years. The fortnightly calls averaged 9.5 minutes. Thematic analysis revealed three core themes which were attitudes towards medication, having to take medication and impediments to chronic illness medication self-efficacy. A lack of knowledge about medications impeded confidence necessary for optimal disease self-management. Participants had
limited access to resources to help them understand their medications. Conclusion: This work has highlighted communication gaps and barriers affecting medication self-efficacy in this group. Culturally sensitive interventions are required to ensure people of culturally and linguistically diverse backgrounds have the appropriate skills to self-manage their complex medical conditions. Relevance to clinical practice: Helping people to take their medications as prescribed is a key role for nurses to serve and protect the well-being of our increasingly multicultural communities. The use of interpreters in motivational interviewing requires careful planning and adequate resources for optimal outcomes. (PsycINFO Database Record (c) 2016 APA, all rights reserved)(journal abstract) Source: PsycInfo

Full Text: Available from EBSCOhost in Journal of Clinical Nursing

Title: Connect2: A motivational peer support model for type 2 diabetes

Citation: Diabetes Research and Clinical Practice, November 2014, vol./is. 106/(S24-S25), 0168-8227 (November 2014)

Author(s): Abeypala U., Chalmers L., Trute M.

Language: English

Abstract: Background: Failure to achieve treatment targets is common among people with type 2 diabetes. Professional appointments do not always tailor information to individuals needs and provision of support in mastering and sustaining complex self-management behaviours can be overlooked(1). Sustained, cost-effective services are required to delay onset and slow the progression of diabetes-related complications. Connect2 was developed as a pilot telephone peer support service for people with type 2 diabetes. It aims to alleviate anxiety around diagnosis for newly diagnosed patients and improve glycemic control and adherence to diabetes management practices. Method: Volunteers diagnosed with type 2 diabetes and adhering to standard management practices were recruited and underwent group training conducted via webinar. Training consisted of information about type 2 diabetes management and motivational interviewing skills. Role plays were conducted with each volunteer to ensure communication skills could be applied. Volunteers were then assessed for their suitability as a 'peer supporter'. Peer supporters were chosen based on their emotional development following diagnosis, their ability to successfully manage type 2 diabetes and their ability to apply training material and understand program boundaries. Following training, each peer supporter was 'matched' with at least one participant who requested support. Participants were assessed for their suitability for the service and received up to 12 phone calls over a three month period from their peer supporter. Self-reported data was collected through telephone interviews conducted with peer supporters pre and post training and at the end of the service, telephone interviews with participants' pre and post service and online post-call surveys collected from peer supporters and participants. Result: All peer supporters understood program guidelines post-training and reported high levels of confidence in program delivery. At the end of the service, participants demonstrated improvement in glycemic control, diet, physical activity and compliance in screening for complications as well as a marked improvement in perception of diagnosis, knowledge and confidence with managing type 2 diabetes. Participants also demonstrated high levels of self-efficacy and motivation as well as increased knowledge of evidence-based consumer resources and services. Peer supporters noted a similar improvement in motivation levels while delivering the service. The service was initially developed to assist newly diagnosed patients but people who had lived with diabetes longer requested and similarly benefitted from this service. Conclusion: The Connect2 service demonstrates the effectiveness of a telephone peer support model utilising motivational interviewing techniques to enable patients to develop and reengage with management practices for type 2 diabetes. This model has the capacity to deliver ongoing support for patients given the longevity of the condition. Results from this pilot study have
the potential to inform the delivery of a large scale service to meet the growing demands of people diagnosed with type 2 diabetes.

**Publication Type:** Journal: Conference Abstract  
**Source:** EMBASE

**Title:** Motivational interviewing-based exercise counselling promotes maintenance of physical activity in people with type 2 diabetes  
**Citation:** Canadian Journal of Diabetes, October 2013, vol./is. 37/(S3), 1499-2671 (October 2013)  
**Author(s):** Armstrong M.J., Campbell T.S., Lewin A.M., Khandwala F., Culos-Reed S.N., Sigal R.J.  
**Language:** English

**Abstract:** Aim: Motivational interviewing is a directive, patient-centred counselling approach focused on exploring and resolving ambivalence. This study examined the effectiveness of motivational interviewing-based counselling in improving maintenance of physical activity (PA) in individuals with type 2 diabetes (T2D) after completion of an exercise program. Methods: Upon the completion of an 8-week supervised exercise program, participants with T2D (n=55, 55% female, mean age 60.3) were randomly assigned to motivational interviewing plus standard care (Intervention) or standard care alone (Control). Differences in PA (measured by modified Godin Leisure Time Exercise Questionnaire) and HbA1C over 6 months were compared between groups using linear mixed modelling. Results: At baseline, the mean (SD) level of PA was 1128 (491) MET-min/week with no difference between the groups (p=0.475). At 6 months, the intervention group was significantly more active than the control group, reporting a mean 1213 (948) versus 663 (720) MET-min/week (p=0.0361). Compared with the intervention group, the mean change in PA in the control group was e388 MET-min/week (95% CI: e634 to e142). The mean HbA1C was 6.9% at baseline and did not change significantly in either group. Conclusions: The addition of motivational interviewing-based sessions following an 8-week exercise program improved the maintenance of PA in people with T2D. There was not a significant effect on HbA1C, but low baseline HbA1c limited room for improvement. The addition of motivational interviewing-based counselling after an exercise program is an effective approach in promoting the maintenance of exercise in people with T2D. (Table Presented).

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

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### Notes

- Searched completed by Michael Cook on **7th September 2016** for Public Health Bolton.
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- An NHS Athens or other authentication may be required to view some or all of the results