

Helping Patients Make and Sustain Healthy Changes: A Brief Introduction to Motivational Interviewing in Clinical Diabetes Care

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The Challenge of Diabetes Self-Management Counseling in Busy Office Visits

Diabetes self-management refers to the full range of activities (or “behaviors”) in which patients care for their illness and promote their health. The three broad self-management tasks include 1) managing the disease (taking medications, following a diet, engaging in physical activity, self-monitoring); 2) maintaining one’s daily life while living with chronic illness; and 3) dealing with emotional aspects of the disease, such as anger, fear, frustration, and depression.^{1,2}

There is consensus on the key preconditions for effective diabetes self-management. These include 1) sufficient knowledge of the condition and its treatment; 2) skills to manage the condition and to maintain functioning (ability to identify problems, barriers, and supports and to generate solutions); 3) internal, or autonomous, motivation (belief in treatment effectiveness and its relevance to one’s goals, values, and priorities);^{3,4} 4) confidence in one’s ability to successfully execute specific tasks (self-efficacy);⁵ 5) adequate environmental support to initiate and sustain behavioral changes (assistance to overcome obstacles, reminders, encouragement, and support from valued people at appropriate times and places); and 6)

effective affect management (coping with possible depression and other emotional responses to living with diabetes).^{2,6}

Primary care providers can play a key role in multiple ways to help their patients manage their condition, offering informational (therapeutic advice, education), behavioral (realistic self-management goals), emotional (empathy, acceptance, assessment and treatment of depression, recommendation for support groups), and tangible (insulin, test strips) support.⁷ Many physicians, however, are more comfortable in their role providing information and education than they are providing emotional support and facilitating behavioral changes.⁸ Although knowledge and information are necessary for patients to manage their disease effectively, they are not sufficient to motivate them to make and sustain behavior changes.^{9,10}

As Robert M. Anderson, PhD, an internationally recognized diabetes educator, has noted, “‘Noncompliance’ occurs when patients and physicians are pursuing different goals.”¹¹ Patients interpret, evaluate, and react to doctors’ recommendations based on their personal experience of their illness in the context of their lives; patients adhere more to recommendations that coincide with their own goals

and ideas about their illness.¹¹ Collaborative and autonomy-supportive physician communication results in higher patient satisfaction and adherence to treatment plans, and patient-provider agreement on treatment goals and strategies is associated with higher levels of diabetes self-efficacy and better self-management.^{12,13} To fully support patients’ diabetes self-management, physicians must be able to 1) assess behavioral and motivational status, 2) help patients build motivation for change, 3) collaboratively select a plan of action, 4) negotiate realistic goals, 5) tailor treatment plans to patients’ situations, and 6) provide ongoing follow-up and support.^{8,10-13}

Motivational Interviewing Approaches to Behavioral Counseling

Motivational Interviewing (MI) is an effective approach to helping patients build motivation and confidence to undertake the behavioral changes necessary for effective diabetes self-management.¹⁴ A growing number of randomized controlled trials have now shown that MI-based approaches outperform traditional advice and education in the treatment of multiple conditions and behavioral problems, including diabetes.¹⁵⁻¹⁷

Miller and Rollnick¹⁴ first described MI as a “directive, client-centered counseling style for eliciting behavior change that helps clients to

explore and resolve ambivalence.” MI builds on insights about human nature recognized as early the 1600s by Blaise Pascal,¹⁸ who wrote that, “We are usually convinced more easily by reasons we have found ourselves than by those that have occurred to others.”

MI is both a set of techniques and a counseling style. The role of the provider is to encourage patients to think about and articulate their own reasons for and against making changes, how their behavior supports or conflicts with their own goals and values, and specific short- and long-term steps toward change (development of an action plan). Table 1 provides some guiding principles of MI, and Table 2 outlines key roles for providers using MI to encourage behavior change. To effectively execute these principles, providers need to learn and practice some core techniques and strategies. The more patient-centered and collaborative aspects of MI can be new to many primary care providers trained in more prescriptive, advice-giving approaches.

MI Communication Skills in Practice

MI requires use of communication skills that are already part of medical and other health professional training programs, such as expressing empathy, using open-ended questions (rather than closed yes-no questions), and appropriate nonverbal communication (i.e., body language). In addition, MI relies heavily on several other communication techniques, many of which are often not part of routine clinical practice.

Reflective listening

Although open-ended questions are a good way to start eliciting information from patients and to assess their current behavioral and motivational status, reflections are more effective in building rapport and

encouraging patients to explore and disclose. Reflections are statements, rather than questions, that attempt to interpret the meaning of or emotion behind what patients are saying. At the most basic level, reflections rephrase what patients have said (“content” reflections).

Reflections can also be an important opportunity to delve into how patients feel about their situation (e.g., “You are feeling frustrated about . . .”). Even when incorrect, reflections still convey that the provider is actively trying to understand and accepts in a nonjudgmental way what patients are experiencing. Reflections, even if inaccurate,

encourage patients to further clarify and explain their experiences and feelings. Reflections can also selectively reinforce patients’ own self-motivational statements (“action” reflections), encouraging them to further expand and discuss how and why they might want to change.

Agenda setting and asking permission

In MI, advice and information are generally not given without first asking patients’ permission; when permission is given, they are provided from a position of autonomy support and patient choice. Providers engage patients in deciding what behaviors

Table 1. Guiding Principles of MI

- Health behaviors relate to deeper issues/values.
- If you are ordered to do something, it is likely that you will do the opposite. (Advice, persuasion, and even information elicit resistance as much as they do change.)
- Your beliefs are more influenced by what you hear yourself say than by what others say to you.
- Behavior change is driven by motivation and confidence (“self-efficacy”), not information.
- Motivation is a state of readiness for change that may fluctuate over time or from one situation to another and can be influenced to change in a particular direction.
- Motivation can be evoked in a patient, but not imposed.
- Much can be covered in a 10-minute encounter.

Table 2. Primary Care Provider Role in MI

- The primary care provider’s obligation is to help patients examine and explore their ambivalence and the pros and cons of change and to identify and mobilize their own intrinsic values and goals to stimulate behavior change—NOT to ensure change.
- Develop discrepancy: how does current behavior conflict with core values?
- Minimize unsolicited advice.
- Avoid argumentation and direct persuasion.
- Roll with resistance:
 - Patients overcome their own obstacles
 - It’s a dance, not a wrestling match
- Encourage “change talk”: self-motivating statements made by patients.
 - Recognition of an issue
 - Exploration of patients’ personal reasons for making a change
 - Discussion of potential consequences of current behaviors
 - Expression of hope or confidence about making a change
- Elicit and encourage patients’ beliefs in their ability to carry out and succeed in achieving a specific action step.
- Help patients identify a specific step that is important to them and that they are confident they can carry out.
- Help patients identify and articulate possible barriers to achieving the specific step they have chosen and possible ways to overcome those barriers.
- Provide support and arrange follow-up.

to address and how much change they might be willing to attempt. If patients sound defensive or start focusing on why they cannot change, a key MI technique is to “roll with the resistance,” by listening nonjudgmentally and not contesting what patients are saying. Examples include, “Giving up soda sounds like it is going to be very tough for you,” or “You are dreading having to monitor your blood glucose.” MI is a dance rather than a wrestling match.¹⁹

A useful structure for giving information or advice using MI is the three-part elicit-provide-elicite framework. This involves 1) Elicit: find out what patients already know, as well as additional information they would like to know; 2) Provide: provide new information or advice, giving choice about how much; and 3) Elicite: encourage patients to interpret and react to the information or advice and tailor responses accordingly.

Eliciting change talk

A core MI strategy, as noted above, is eliciting self-motivational statements or “change talk.” Techniques that further this aim include assessing importance and confidence for change and exploring discrepancies between current behavior and patients’ personal core values and goals. The goal is to get patients talking about reasons for making changes and to uncover their efficacy for change and, when possible, to solve their own barriers to change.

Action planning

Once patients identify an area on which they would like to work, it is important to break longer-term behavioral goals into discrete, short-term action steps that can be tried over the next day or week. An action step is a targeted, concrete activity that patients propose to undertake, with the “what, where, how, and

when” clearly outlined (e.g., “I will walk around the block after lunch on Monday, Wednesday, and Friday.”). The provider helps explore possible barriers to implementing the action plan and ways the patient can overcome these barriers.

Arranging follow-up

It is important to arrange follow-up to determine the patients’ progress in meeting their action steps and to help them modify their action steps if necessary or build on their success, no matter how small. Reminding patients about what was discussed in the previous session, including what goals were set, can further establish rapport and communicate patient-centeredness.

Example of a Brief MI Session

The following case illustrates several MI techniques. The context is a follow-up visit with a 60-year-old man whose last A1C was 8.2% and whose other risk factors are in good control.

Provider: What aspects, if any, of taking care of your diabetes concern you? (*open-ended question*)

Patient: I feel like I’m doing okay with most things . . . like watching what I eat and sticking my finger.

Provider: So, you feel you are doing pretty well with your diet and monitoring your blood levels . . . but there are some things you feel you could be doing better. (*content reflection*)

Patient: Well, I guess the only area that sometimes messes me up is remembering to take all my medications. There are so many different pills, at different times, with different foods . . . it’s impossible to keep track of it all.

Provider: Overall, you are doing a good job of taking care of your diabetes, but the number and complexity of your medications can be

overwhelming and maybe frustrating . . . and that makes it difficult to keep track of. (*feeling reflection*)

Patient: Yeah, it can be overwhelming. It’s not that I find it frustrating exactly, but I guess it makes me mad that I have to take so many medications.

Provider: You resent having to depend on medications. (*feeling reflection*)

Patient: Yeah. I’ve always been independent and pretty healthy. I know I need to take these medications, but I guess I also resent it. I also feel that I should be able to just remember to take them as scheduled, but I guess I do need a better system.

Provider: You are a little disappointed in yourself for not being able to manage this all. If it’s okay, let me ask you a question that might help us understand where you are . . . On a scale of 0 to 10, with 0 being completely not important and 10 being completely important, how important is it to you to take your medications more regularly? (*assessing importance with importance ruler*)

Patient: I guess I would give it a 7.

Provider: That sounds as if it is pretty important to you. Why did you give it a 7 and not a lower number? (*exploring benefits of change*)

Patient: Well, it is important for my health and to staying as independent as possible in the future. (*link between behavior change and values*)

Provider: So taking your medications means maintaining your independence. (*content reflection*) So, why would you say it is a 7 and not a higher number? (*exploring costs of change*) (Table 3 offers other approaches to exploring pros and cons of change and developing dis-

Table 3. Approaches to Exploring Pros and Cons of Specific Behavior Changes

1. Values Clarification

Introduction: "Often it helps when thinking about change to consider how it affects our values and goals. Take a minute to look over these values and pick a few that are important to you."

Good parent	Popular	Athletic
Good spouse/partner	Healthy	Not hypocritical
Good community member	Positive	Energetic
Strong	Caring	Considerate
On top of things	Relaxed	Youthful
Competent	Attractive	Independent
Spiritual	Disciplined	Family-oriented
Respected at home	Responsible	Giving
Religious	In control	Self-confident
Successful	Respected at work	

Probes:

- If you were to [behavior change], how might it affect the values you mentioned? How might it help you [e.g., be a better citizen]?
- If you continue to [current behavior], how might that affect those values?

2. Pros and Cons Matrix

- Work with patient to complete the matrix below.

PROS AND CONS OF CHANGE

	Pros	Cons
Changing	Reasons for change	Dread of change
Not Changing	Positive role of risky behavior	Reasons for change

crepancy if patients seem ambivalent about making any changes.)

Patient: Well, I guess it is important, but I'm not sure what it would take to be able to do it. I guess I am not sure I can do it.

Provider: You do think it is important, but you're concerned about how difficult it might be. You are not sure how to go about it. (*double-sided reflection*)

Patient: Yeah. I just can't remember to take them.

Provider: If you'd like, I can tell you some strategies that have worked for other patients who are taking a lot of medications. But first, what, if any-

thing, have you tried or might you be willing to try?

Patient: Mainly, I just try to tell myself that I have to remember to take them. I haven't tried any specific other things.

Provider: Is it all right if I talk with you about some other strategies? (*asking permission to give advice or information*)

Patient: Sure, that would be fine, if you think it might work for me, too.

Provider: With so many medications, it helps some people to put them in a pill organizer and then keep the pill organizer in a place where you will see it at the times when you are supposed to take the medications. You take some medications once a day

and some twice a day, so you might want to keep the organizer right by your toothbrush if you brush your teeth twice a day, or somewhere else if you tend to do something else in the morning and night. Might this, or something like it, maybe work for you?

Patient: Yeah, I had been thinking about trying an organizer. I just hadn't gotten around to it.

Provider: What is something you might do in the next few days or week to move this along? (*negotiating an action step*)

Patient: I guess the first step would be to go buy an organizer and put my medications in it. (*breaking change down into specific, smaller steps*)

Provider: Sometimes it helps to think through some specifics of what you plan to do: like when, where, and how.

Patient: I can stop by the drug store tomorrow right after work. I have to pick up some other stuff. I'll buy it then. I can then put my pills in it that night after dinner with help from my wife. She has been wanting me to do this.

Provider: That sounds like a good plan. What, if anything, might get in the way of doing this? (*exploring possible barriers to action step*)

Patient: If I have to work late tomorrow, I won't have time to get to the drug store.

Provider: What might your plan be then? (*exploring ways to resolve barrier*)

Patient: Maybe I'd better go to the drug store right near work at lunch time instead of waiting until after work. I think I'll do that instead.

Provider: On a scale of 0 to 10, with 0 being not at all confident and 10 being as confident as possible, how confident do you feel that you can do this? (*assessing confidence*)

Patient: Oh, I know I can do this: definitely 10.

Provider: You seem more confident than when we started talking. That's encouraging. It's good to take things like this a step at a time. I'll be eager to hear how this goes for you. My nurse, Helen, will be in touch with you next week to touch base with you and see how things are going. (*arranging follow-up*)

Conclusion

Improved diabetes outcomes depend, to a large extent, on how patients manage their diabetes between office visits. Like many aspects of medicine, using MI to help patients undertake and sustain the necessary behaviors to manage their condition is as much an art as it is a science. It can require considerable training and practice depending on your innate communication style. And, beyond the specific techniques of MI is its underlying philosophy of autonomy support and collaboration.

Although providers are generally comfortable addressing the physiological aspects of diabetes, they are often less comfortable with the behavioral, emotional, and even spiritual dimensions of this complex disease. Improving our ability to listen to and communicate with our patients, to understand and empathize with their struggles, and to support them in making what can be daunting and difficult lifestyle changes will improve both quality of care and patient outcomes. For

most providers, this will require changing the way we interact with our patients: less talking and more listening, less advising and more eliciting, less directing and more guiding.

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REFERENCES

- ¹Bodenheimer T, Lorig K, Holman H, Grumbach K: Patient self-management of chronic disease in primary care. *JAMA* 288:2469–2475, 2002
- ²Lorig KR, Holman H: Self-management education: history, definition, outcomes, and mechanisms. *Ann Behav Med* 26:1–7, 2003
- ³Williams GC, Rodin GC, Ryan RM, Grolnick WS, Deci EL: Autonomous regulation and long-term medication adherence in adult outpatients. *Health Psychol* 17:269–276, 1998
- ⁴Williams GC, Freedman ZR, Deci EL: Supporting autonomy to motivate patients with diabetes for glucose control. *Diabetes Care* 21:1644–1651, 1998
- ⁵Bandura A: *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, N.J., Prentice-Hall, 1986
- ⁶Whitlock EP, Orleans CT, Pender N, Allan J: Evaluating primary care behavioral counseling interventions: an evidence-based approach. *Am J Prev Med* 22:267–284, 2002
- ⁷Funnell MM, Anderson RM: Changing office practice and health care systems to facilitate diabetes self-management. *Curr Diab Rep* 3:127–133, 2003
- ⁸Heisler M, Bouknight RR, Hayward RA, Smith DM, Kerr EA: The relative importance of physician communication, participatory decision making, and patient understanding in diabetes self-management. *J Gen Intern Med* 17:243–252, 2002
- ⁹Heisler M, Piette JD, Spencer M, Kieffer E, Vijan S: The relationship between knowledge of recent HbA1c values and diabetes care understanding and self-management. *Diabetes Care* 28:816–822, 2005
- ¹⁰Norris SL, Engelgau MM, Narayan KM: Effectiveness of self-management training in type 2 diabetes: a systematic review of randomized controlled trials. *Diabetes Care* 24:561–587, 2001
- ¹¹Anderson RM, Funnell MM: Compliance and adherence are dysfunctional concepts in diabetes care. *Diabetes Educ* 26:597–604, 2000
- ¹²Heisler M, Vijan S, Anderson RM, Ubel PA, Bernstein SJ, Hofer TP: When do patients and their physicians agree on diabetes treatment goals and strategies, and what difference does it make? *J Gen Intern Med* 18:893–902, 2003
- ¹³Roter DL, Hall JA, Merisca R, Nordstrom B, Cretin D, Svarstad B: Effectiveness of interventions to improve patient compliance: a meta-analysis. *Med Care* 36:1138–1161, 1998
- ¹⁴Miller WR, Rollnick S: *Motivational Interviewing: Preparing People for Change*. 2nd ed. New York, Guilford Press, 2002
- ¹⁵Resnicow K, Baskin M, Rahotep S, Periasamy S, Rollnick S: Motivational Interviewing in health promotion and behavioral medicine settings. *Health Psychol* 21:444–451, 2003
- ¹⁶Rubak S, Sandboek A, Lauritzen T, Christensen B: Motivational Interviewing: a systematic review and meta-analysis. *Brit J Gen Pract* 55:305–312, 2005
- ¹⁷Britt E, Hudson SM, Blampied NM: Motivational Interviewing in health settings: a review. *Patient Ed Counsel* 53:147–155, 2004
- ¹⁸Pascal B, Genet C: *Pensees*. Paris, Hatier, 1670
- ¹⁹Rollnick S, Mason P, Butler C: *Health Behavior Change: A Guide for Practitioners*. Edinburgh, Scotland, Churchill Livingstone, 1999

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