In Brief

Motivational interviewing (MI) is a client-centered, collaborative counseling strategy designed to help people explore and enhance motivation to change behavior while supporting autonomy and self-efficacy. MI strategies have been used to facilitate a wide range of behaviors and show promise for enhancing weight loss in diabetes. This article provides an overview of MI and discusses its application in the context of counseling overweight individuals with type 2 diabetes.

Incorporating Motivational Interviewing Into Counseling for Lifestyle Change Among Overweight Individuals With Type 2 Diabetes

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Motivational interviewing (MI) was introduced as a counseling style more than a decade ago, with original applications in problem drinking,[1] which expanded into exploration of utility for managing diabetes. Diabetes is a chronic health condition requiring vigilance to multiple health behaviors to optimize glycemic control and minimize both short- and long-term complications. The number, type, and extended nature of the behaviors required for optimal diabetes self-management frequently present motivational challenges for those with type 2 diabetes. MI offers some specific strategies designed to engage individuals in movement toward change.

Results from several studies support the use of MI to enhance weight loss in overweight individuals with type 2 diabetes. For example, our research group demonstrated that obese women with type 2 diabetes randomized to behavior therapy plus MI had significantly better weight loss than those receiving behavior therapy plus a health education intervention (attention placebo control).[2] Relative to the group receiving behavioral treatment and health education, the MI group had significantly greater weight loss at the end of the weight loss induction phase of treatment, which featured weekly sessions. This superior weight loss was sustained through the weight maintenance phase at 18 months.

As might be expected with the greater weight losses, better improvements in glycemic control were apparent among those in the MI group than among those in the standard behavior therapy group, although both groups experienced marked improvements in A1C values after initial weight loss. However, these improvements attenuated over time in both groups such that there was no significant difference between the groups at the end of 18 months, although significant differences in weight loss were still apparent. Of particular interest for treatment process, analyses indicated that increased weight loss with MI was mediated by enhanced treatment engagement and program adherence.

Carels et al.[3] similarly found greater program adherence and weight losses in their study of MI delivered in a stepped-care manner to overweight individuals (who may or may not have had type 2 diabetes, although insulin-dependent individuals were excluded). Participants who were randomized to receive MI were offered sessions only if they encountered a weight loss plateau. Among participants who had initially failed to meet weight loss goals, those who received MI lost more weight than those who struggled but were not provided MI. Thus, the researchers concluded that MI has a special role for assisting individuals who are experiencing difficulty in achieving weight loss in a standard program.

Although findings from these initial studies investigating MI to promote behavioral weight loss are encouraging, positive results are not uniform. For example, Befort et al.[4] found that adding MI to a culturally targeted behavioral weight loss program for African-American women yielded no benefits in terms of either program adherence or weight loss. This study was not limited to overweight women with type 2 diabetes, but it has some parallels with our study described above. We found that although the MI intervention produced superior weight loss among African-American women at 6 months relative to their counterparts who did not receive MI as an adjunct to a group-based behavioral weight control program, by the final 18-month follow-up, weight loss among African-American women in the two groups was equivalent. Thus, a sustained impact of MI was not apparent. Heinrich et al.[5] similarly found no effect on weight loss with the addition of MI delivered by nurses within a general practice setting followed for more than 1 year. These authors appropriately raise the question of what is adequate training to deliver MI proficiently and how does this counseling style fit into a busy medical practice setting. To these concerns can be added issues of consistency of dose across time within applied settings and lack of information about an adequate MI dose for sustained behavior change.

A recent qualitative study explored the use of MI with African-American women with type 2 diabetes by presenting DVD examples of both a traditional and an MI-based health consultation to gauge participant reactions. Although women perceived the MI consultation to be consistent with good communication, there appeared to be a preference for the more traditional approach.[5]

Taken as a whole, this body of research suggests that, although initial findings have been encouraging, additional studies are warranted to determine in which populations and under what conditions the delivery of MI is most effective for potentiating weight loss in individuals with type 2 diabetes.

There is an additional but very nascent literature on the broader use of MI for self-management of type 2 diabetes that deserves mention. In a study focusing on glycemic control rather than weight per se, Welch et al.[6] found that participants who received 6 months of diabetes self-management education (DSME) blended with MI strategies and delivered by diabetes educators showed less improvement in A1C than those who received DSME alone. Hawkins[7] found that MI was helpful in improving A1C levels among individuals with poor glycemic control at baseline if the individual had high self-efficacy for behavior change, suggesting that patient factors may be associated with response to the counseling style or that adequate dose may vary. Thus, the behavioral targets, as well as the populations most likely to benefit from MI to improve their diabetes status and the type or intensity of clinician training to provide adequate MI skills, merit continued attention.

MI is a collaborative style of interacting with an individual that seeks to enhance motivation for health behavior change by strategic use of evocative and reflective methods that clarify and strengthen an individual's reasons for change.[1] MI is implemented in a context that supports client autonomy and augments self-efficacy. A central MI strategy is the elicitation of change talk, or personally relevant reasons that support movement in the direction of healthful behavior change.[8] Change talk is further strengthened through strategic use of client-centered counseling strategies such as reflective listening.

Recent studies demonstrate that individuals with a higher proportion of change talk are more likely to make the targeted behavior changes.[9] A practitioner's behavior can increase the proportion of change talk an individual offers. Patients of physicians who demonstrate the MI "spirit" and use MI-consistent strategies have significantly greater weight loss than patients of physicians who do not embody the MI spirit or who use MI-inconsistent behaviors.[10] Given the fundamental role of these MI-consistent behaviors in promoting health behavior change, this article focuses on these specific strategies: developing a collaborative relationship, setting an agenda, evoking and responding to change talk, handling resistance, and negotiating a change plan.

The Collaborative Relationship

A collaborative counselor-client relationship is at the core of an MI encounter. The counselor's role is to engage a client in a conversation with the goal of strengthening the client's motivation for and commitment to behavior change. MI emphasizes client autonomy, empowers clients to make their own decisions, and supports clients' self-efficacy. MI is not an expert-recipient model; a fundamental tenet of this approach is that clients bring knowledge that complements the counselor's expertise and is essential to successful behavior change. An MI counselor solicits clients' direction and input throughout encounters, avoids prescribing behaviors, and refrains from offering unsolicited advice.

Setting the Agenda

Although it is reasonable for a counselor to begin a session with goals in mind, it is crucial from an MI perspective to engage clients in agenda-setting to ensure that their perspective is

included. This process can also alert the counselor about areas of behavior change that clients may be most motivated to pursue. The counselor can prompt the client's thoughts with an open-ended question (e.g., "What's your most pressing concern today?") or by offering a menu of potential topics from which the client can select.

Setting the agenda also provides the counselor with context about the client's values and daily activities. If the relationship is new, the counselor may choose to start by asking the client to describe a typical day (e.g., "Describe a typical day for me, your family life, work. I'm especially interested in how your health fits in.").

Counselors should avoid asking questions that may be interpreted as confrontational (e.g., "I see that you are still not taking your medication as regularly as you should. Why is that?"). Such questioning conveys an implied agenda on the counselor's part and suggests that the client has done something wrong; this may make clients defensive and is likely to actually decrease the probability of behavior change.[8]

Recognizing and Eliciting Change Talk

"Change talk" is an MI term referring to client-generated statements that reflect some thought supporting changing current behavior. A primary aim of the MI counselor is to recognize and elicit change talk so that it may be amplified and reflected back to the client with the goal of enhancing momentum towards behavior change.

Change talk may express a concern, recognition of a problem, optimism about change, or an intention to change. Seven categories of change talk are summarized in the acronym DARN-CAT (Table 1). Statements indicating desire, ability, reasons, and need (DARN) are considered preparatory change talk reflective of ambivalence about change. Statements of commitment, activation, or taking steps toward change (CAT) indicate forward momentum for behavior change.

It is crucial for MI counselors to recognize change talk when it is spontaneously offered. It is also important for counselors to learn how to elicit change talk. Some helpful strategies include:

- Asking direct, open-ended questions such as those provided in Table 2
- Helping clients look forward by considering what might happen if the behavioral status quo is maintained or changed
- Helping clients rate and understand their motivation (e.g., "On a scale from 1 to 10, with 1 being not at all motivated and 10 being extremely motivated, how motivated are you to _____ ?," followed by, "What makes you say 5 rather than 2 or 3?")

Responding to Change Talk

The counselor should reflect and amplify clients' change talk, thereby extending and strengthening their motivation for change. This can be accomplished by asking for elaboration, offering affirmations, and reflecting or summarizing the change talk.

Reflections in the context of MI are used for a variety of reasons: to follow up change talk, to transition between topics, or to move to a new phase of an encounter (e.g., transitioning into action planning). A reflection can be a restatement of what a client has said or can take a client's statement to the next step. In reflecting, counselors should strive to convey their understanding not only of the client's meaning, but also of the underlying feelings. More complex reflections geared toward extending what the client has said also serve the key purpose of enhancing change talk. Contrast the simple reflection below with a more complex reflection that conveys an understanding of the client's feeling and extends the communication.

Client: *"I want to lose weight so that I can get back to feeling like my old self. I've been dragging around and hiding at home because I hate to go out. I get so depressed when I weigh so much and my sugars go way up."*
Simple reflection: *"You want to lose weight so that you can control your blood sugar."*
Complex reflection: *"You see weight loss as a way to recapture your energy and to feel better about yourself."*

Reflections to build and amplify change talk are generally quite concise and focus on change talk that has just been expressed. Rather than attempting to reflect everything a client says, counselors should selectively reflect change talk to focus on clients' motivations to change.

Reflective listening seeks to mirror to clients what they are saying and to clarify their perspective. Making completely accurate reflections is not necessary. Indeed, a counselor often learns more when a client corrects a reflection. MI encourages counselors to explore the periphery of the client's motivations for change using evocative reflections and relying on clients to re-direct them if they stray too far. Through re-direction, both counselor and client may learn more about the client's motivations than might have been accomplished with an accurate initial reflection.

When transitioning to a new phase in the counseling encounter, longer summaries can reflect the range of client-generated statements in favor of change. This type of strategic summary should weave individual strands of change talk into a more complete picture using the language offered by the client whenever possible. A

Table 1. DARN-CAT Change Talk

Desire to change: *I really want to change my diet and start walking so I can lose weight.*
Ability to change: *For the first time, I really believe that I can stick to this exercise plan.*
Reasons to change: *When I forget my medications, I almost always feel terrible.*
Need to change: *I really need to get my blood sugar under control.*
Commitment to change: *I am definitely going to fill out my food diary every day this week.*
Activation of change: *I would certainly consider buying one of those little pill containers. I think that could be helpful.*
Taking steps toward change: *I have been keeping track of my blood sugar every day this week!*

Table 2. Questions to Elicit DARN-CAT Change Talk

Approaches to elicit each of the DARN-CAT types of change talk are provided below, but counselors should not feel that every type of change talk must be elicited to have a successful counseling session.

Desire:	What would make you want to make the change? What's your vision of what you want to see happen if you were to lose some weight? What excites you about the possibility of increasing your physical activity?
Ability:	If you were to do this, what would be the best way to go about it so it would turn out as you want? How might you go about improving your adherence to your medicines to succeed? How might you manage to fit 30 minutes of walking into your day?
Reason:	What makes you think this might be a good time to make this change? What are your top three reasons for making the change? If you do not get a handle on your blood glucose monitoring, how do you imagine things playing out? What is your biggest reason for wanting to cut back on eating out?
Need:	How important is this change for you and why? On a scale from 0 to 10, how important is it for you to get your blood glucose under control? Why did you rate that a 6 and not a 3 or a 4?
Commitment:	What do you intend to do? How are you planning to get in 3 days of exercise this week? Given everything else that is going on, what do you feel is realistic for you to accomplish with your diet during the next month?
Activation:	What are you willing or ready to do? What is one step toward cutting back your calories that you are willing to make right now? What are you ready to do right now to remember to take your morning pill?
Taking Steps:	What have you already done? Tell me about the steps you have already taken to change your diet. What are the things you did last week that enabled you to monitor your blood glucose so consistently?

strategic summary not only allows the counselor to check for accuracy in understanding, but also allows clients to hear a succinct summary tying together all of their personal reasons for change.

Sustain Talk

Clients frequently discuss advantages of maintaining the status quo, or of not changing. This is known as "sustain talk." Clients will say they have no time to exercise, assert that weight loss is too hard, note that family members think they should not take diabetes medicines, or make other similar comments that could be construed as negative.

However, when made in the context of other statements that characterize change talk, such comments should not be of concern. It is the balance between change talk and sustain talk that is associated with movement toward behavior change—not the absence of sustain talk. A counselor does not need to wait until there is no sustain talk to conclude that the balance has shifted toward change and move on to developing a change plan. However, if the counselor observes that sustain talk outweighs change talk, it is time to regroup and elicit more change talk.

Dealing With Resistance

On occasion, counselors experience a resistant client, who does not appear to want to change or who resists suggested action plans. Resistance can be recognized in clients who says, "that won't work for me," or engages in "yes, but …" remarks or insists that "I am doing everything you told me to do but nothing is working."

Sustain talk should not be confused with resistance. Sustain talk is a normal part of the behavior change dialogue; resistance is a sign that the counseling encounter is discordant.

In other words, the client has sufficient ambivalence about the behavior change that the counselor "pushing" for change has elicited "push back." Resistance can thus be handled by a change in the counselor's behavior. When counselors experience client resistance, it should be a signal to stop what they are doing and fall back on reflective listening and open-ended questions to re-engage the client, rebuild rapport, and elicit and reinforce more change talk. Opposing resistance by engaging in arguments about why the individual should change or discounting arguments against change is likely to entrench the resistance interaction. "Rolling with" resistance (adjusting counseling behavior based on the behavior of the client) is a hallmark of MI.

Moving to Planning

Developing a behavior change plan should occur only after clients indicate their readiness for this next step. Signs to move to this step include *1*) increased change talk and markedly increased proportion of change talk relative to sustain talk, *2*) diminished resistance, *3*) decreased discussion about the problem, and *4*) a sense that the client has resolved to change, which is often accompanied by *5*) questions from the client about changing. It is important to be alert to these signs and transition into negotiating a behavior-change plan when they appear. Transition is facilitated by providing a concise strategic summary of the client's reasons for changing and anticipated benefits, followed by a mobilizing question such as "What are you ready to do now?"

Negotiating a behavior-change plan within MI includes several distinct components: setting goals, considering change options, arriving at a plan, and eliciting client commitment for the plan. Goals and action plans volunteered by the client are to be preferred over those generated by the counselor because individuals are more likely to follow through with plans they develop themselves.

Counselors sometimes feel compelled to offer advice or information about behavior change. Before they do, the MI approach calls for counselors to first ask for the client's permission to provide some suggestions (and to honor the requests of the

few clients who may say they would rather not hear the suggestions). This step allows the continued support of an individual's autonomy in the behavior-change process. The general rule of thumb is to ask for permission, qualify the advice you give, and ask what the person makes of the advice.

Counselors should aim to mobilize the client to make behavior-change plans once the client has identified a behavior change that is personally meaningful and has established a strong foundation of change talk. Counselors can get stuck summarizing change talk for too long and miss the opportunity to transition into action plans. There is little lost to moving along in the process; clients will indicate that if the counselor is transitioning too soon by shifting the balance back to sustain talk. Counselors can respond with resumed eliciting of change talk. However, if there is no increased resistance, counselors can continue with developing an action plan.

Some counselors have difficulty accepting one crucial underlying assumption of the MI spirit: clients have the autonomy to decide not to change. Although this seems self-evident, philosophically, it is often inconsistent with what is observed in a counseling session. The provision or prescription of action plans by the counselor will not produce change in a client who has elected not to change, no matter how comprehensive or elegant the provided action plan may be. MI would guide counselors to not try to install an action plan when clients have not verbalized one independently.

This is not to say that MI gives up on change for such individuals. MI recognizes that individuals who are not ready to make changes—even changes they acknowledge would be in their best interests—are unlikely to change at that time. However, over the long term, individuals are likely to seek their own best interests. Continued encounters with the counselor to help clients uncover their own motivations and build their self-efficacy for change likely will eventually lead clients closer to the path of change than a less MI-consistent approach. The failure of the counselor to force change is not an acknowledgment that the change is not recommended. Rather, it is the recognition that change can be a process, and the counseling encounter may be just one step in that process.

Conclusions

MI is an evidence-supported counseling style aimed at helping individuals explore and enhance motivation to change a range of behaviors. Hallmarks of MI include a collaborative counselor-client relationship that emphasizes recognizing, eliciting, and elaborating on client-generated reasons for change; respecting autonomy; and supporting self-efficacy for change.

With proper training, MI strategies can be readily incorporated into diabetes counseling encounters to promote action toward behavior changes such as improving medication adherence, increasing physical activity, and eating a healthier diet. MI-consistent behaviors exhibited by counselors increase the likelihood of increased change talk, concrete health behavior change, and improved health outcomes among individuals with type 2 diabetes.

Research has been mixed on the benefits of MI in type 2 diabetes across the range of health behaviors and specific populations; methods of MI implementation and delivery have varied widely, with MI implemented by clinicians with widely differing professional backgrounds, different types and intensity of MI training, disparate MI doses provided, and a variety of practice settings. More research is warranted to establish under what conditions MI may enhance behavior-change efforts and improve outcomes for individuals with type 2 diabetes. Equally important would be more definitive research to offer guidance as to whether there are subgroups or target behaviors for which MI may prove deleterious or whether inadequately skillful MI counselors could actually harm health outcomes.

References

[1]Miller WR, Rollnick S: *Motivational Interviewing: Preparing People for Change*. 2nd ed. New York, Guilford Press, 2002

[2]West DS, Gore SA, DiLillo V, Greene PG, Bursac Z: Motivational interviewing improves weight loss in women with type 2 Diabetes. *Diabetes Care* 30:1081–1087, 2007

[3]Carels RA, Darby L, Cacciapaglia HM, Konrad K, Coit C, Harper J, Kaplar ME, Young K, Baylen CA, Versland A: Using motivational interviewing as a supplement to obesity treatment: a stepped-care approach. *Health Psychol* 26:369–374, 2007

[4]Befort C, Nollen N, Ellerbeck E, Sullivan DK, Thomas J, Ahluwalia JS: Motivational interviewing fails to improve outcomes of a behavioral weight loss program for obese African-American women: a pilot randomized trial. *J Behav Med* 31:367–377, 2008

[5]Heinrich E, Candel MJ, Schaper NC, de Vries NK: Effect evaluation of a motivational interviewing based counselling strategy in diabetes care. *Diabetes Res Clin Pract* 90:270–278, 2010

[6]Welch G, Zagarins SE, Feinberg RG, Garb JL: Motivational interviewing delivered by diabetes educators: does it improve blood glucose control among poorly controlled type 2 diabetes patients? *Diabetes Res Clin Pract* 91:54–60, 2011

[7]Hawkins SY: Improving glycemic control in older adults using a videophone motivational diabetes self-management intervention. *Res Theory Nurs Pract* 24:217–232, 2010

[8]Miller WR, Moyers TB: Eight stages in learning motivational interviewing. *J Teach Addict* 5:3–17, 2006

[9]Moyers TB, Martin T, Houck J, Christopher P, Tonigan J: From in-session behaviors to drinking outcomes: a causal chain for motivational interviewing. *J Consult Clin Psychol* 77:1113–1124, 2009

[10]Pollack KI, Alexander SC, Coffman CJ, Tulsky JA, Lyna P, Dolor RJ, James IE, Brouwer RJ, Manusov JR, Ostbye T: Physician communication techniques and weight loss in adults: Project CHAT. *Am J Prev Med* 39:321–328, 2010

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