

MOTIVATIONAL INTERVIEWING



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LEARNING OBJECTIVES

1. Classify helpful and harmful interactions between patient and provider to develop motivational interviewing (MI) skills.
2. Given patient-resistant scenarios, apply an appropriate MI-based response.
3. Analyze the strengths and weaknesses of a health-behavior change intervention according to MI principles.
4. Design an MI-based communication strategy to increase patient adherence to a target health behavior.
5. Assess provider communication strategies that promote or hinder treatment adherence.
6. Given different patient attitudes and responses, rationalize the use of certain MI strategies.

INTRODUCTION

Nonadherence to medication regimens has been studied extensively for about 5 decades yet still is as high as 50% to 80% for some diseases/drugs. Nonadherence to drugs and other health behaviors for disease management continues to rise and contribute to the increased prevalence of chronic diseases and their complications. The resulting outcomes are costly for patients and the health care delivery system. Significant effort and study has been given to reducing these costs and detriments to patients, including interventions to help patients decide

to engage in healthy behaviors so that chronic disease outcomes are positively affected.

Many theories have tried to explain and predict why patients do or do not engage in behaviors that are good for them (e.g., taking prescribed drugs) or why they do not stop engaging in behaviors that are considered harmful (e.g., smoking). The transtheoretical model of change suggests there are sequential stages of motivational and behavioral readiness for change. These stages help explain action and aid in decision-making about how to intervene with a patient who is in either the action or pre-action stage. Spending time trying to categorize a patient into a transtheoretical model of change stage is not always practical in health care delivery. A more efficient intervention involves supporting self-efficacy (SE) for the patient to move to a state of change or action by nonjudgmentally exploring ambivalence and resistance with the pre-action patient. This process is based on patient-centered motivational interviewing (MI). Specific MI terms used in this chapter are defined in Box 1-1.

Ambivalence and Resistance to Changing Health Behaviors

Ambivalence can be identified by characteristic behaviors such as procrastinating, being stuck, and inconsistency between stated attitudes and actual behaviors (e.g., a patient says she will fill her prescription on time but consistently does so a week after the due date). Underlying any target health behavior may be

BASELINE REVIEW RESOURCES

The goal of PSAP is to provide only the most recent (past 3–5 years) information or topics. Chapters do not provide an overall review. Suggested resources for background information on this topic include:

- Rollnick S, Miller WR, Butler C. *Motivational Interviewing in Health Care*. New York: Guilford Press, 2008.
- Rollnick S, Mason P, Butler C. *Health Behavior Change: A Guide for Practitioners*. London: Churchill Livingstone, 2000.
- Miller WR, Rollnick S. *Motivational Interviewing*, 2nd ed. New York: Guilford Press, 2002.

ABBREVIATIONS IN THIS CHAPTER

HTN	Hypertension
MI	Motivational interviewing
SE	Self-efficacy
T2DM	Type 2 diabetes mellitus

thought processes in which the patient may not know what to do or why it should be done, may not believe it will help, or may doubt his or her ability to do it.

Consider patient J.C., a 39-year-old woman who is obese and has type 2 diabetes mellitus (T2DM). J.C. is ambivalent about engaging in physical activity and about changing the foods she eats to achieve weight loss. Statements she might make include those listed in Box 1-2.

Patients resistant to change may be easier to identify; they sometimes, but not always, engage in overt behaviors like arguing, raising their voice, adopting a strident tone, blaming, excusing, discounting, becoming hostile, interrupting, or ignoring what the provider says. Resistance can derive from two general sources: relational discomfort or direct issues specific to the individual. *Relational resistance* evolves from something about the patient-provider interaction that creates an uncomfortable feeling, or dissonance, for the patient. Often, this stems from feeling misunderstood or having self-esteem violated in the areas of competence, autonomy, or approval. *Issue resistance* derives from practical or logistic barriers in the daily life of a patient. These may include knowledge deficits, inadequate transportation or money to get prescriptions refilled, a cultural preference for unhealthy foods, or an aversion to adverse effects from a drug.

A resistant patient can often be identified by examining the statements made by the patient. Consider patient

G.H., a 58-year-old man with T2DM and hypertension (HTN). G.H. is resistant to several health behaviors that would have a significant and positive effect on both his T2DM and his HTN. Box 1-3 shows statements G.H. might make as a resistant patient.

The literature is replete with theories and models proposed as frameworks for behavioral interventions to address ambivalence and resistance; a foundational premise of these theories and models is that the patient must be motivated to change. Because motivation is an important component of positive lifestyle changes, all health disciplines should be equipped with effective communication skills to address motivation. Currently, few health professional schools equip their graduates with psychosocial counseling skills focused on health behavior change. Few health care providers have the necessary training to use these skills. In addition, research suggests that the clinical interview training they have received is well intended but may do more harm than good. In fact, providers may contribute to the problem of nonadherence by leaving the patient feeling disrespected, thereby exacerbating ambivalence or resistance. Of importance, clinicians should critically self-evaluate their communication style to determine if and how well it aids in exploring and addressing ambivalence or resistance with patients, even during brief patient interactions.

Background and Rationale for MI

Motivational interviewing is a theory-based communication skills set with an established evidence base for its potential to affect patient outcomes in comprehensive disease management, even during brief encounters. Motivational interviewing began from applications in the addiction and substance abuse fields; it is included in the U.S. Substance Abuse and Mental Health Services Administration's National Registry of Evidence-Based

Box 1-1. Definitions of Specific MI Terminology

Change talk: The patient discusses positive aspects of or plans for change for a target behavior (e.g., what the change will be like, what the benefits are, what he will like about the outcome, what his thoughts/plans are). Asking the patient nonjudgmental questions to elicit change talk is an important MI strategy.

Face: This is the positive self-image that a person wants to be seen as and wants to claim for himself.

MI principles: These five communication principles include expressing empathy, supporting self-efficacy, avoiding argumentation, rolling with resistance, and developing discrepancy.

Righting reflex: This is the clinician's instinctive desire to "fix" the nonadherent patient by taking an advising, expert stance on how the patient should make the change; this contradicts the spirit of MI.

Self-efficacy: Defined as one's confidence to engage in a particular target behavior, higher self-efficacy predicts action for change on a target behavior.

Spirit of MI: A way of being that is foundational to MI-adherent intervention, the spirit of MI is collaborative, caring, nonjudgmental, and includes support of patient autonomy in treatment decision-making.

MI = motivational interviewing.

Box 1-2. Typical Statements from an Ambivalent Patient with Obesity and Type 2 Diabetes Mellitus

“Yeah, I know I need to lose weight and I know it will help my numbers, but I just don’t feel like exercising and dieting.”

“I AM worried that my A1C is 10%, but it’s hard to fit exercise into my busy schedule.”

“I should start an exercise routine because I feel better when I do, but it hurts once I start.”

“I know I need to cut back on those comfort foods that make me gain weight, but they’re what I’ve always eaten and I wouldn’t know where to start.”

“It seems like every time I try to do anything, it’s not enough to make a difference; I don’t know what I could do that would make a difference.”

“I like my smaller-size clothes when I lose weight, but I don’t like people to see me exercising; it’s embarrassing.”

A1C = hemoglobin A1C.

Box 1-3. Typical Statements from a Resistant Patient with Type 2 Diabetes Mellitus and Hypertension

“I know you’re going to try to make me feel bad about myself like the nurse and the doctor did, so you may as well quit now.”

“I just don’t see why it’s a big deal—my numbers aren’t that far out of range and I feel fine.”

“I work hard and I am not giving up my after-work drinks and cigarettes at the bar with my coworkers.”

“No, I don’t see the value in cutting back on portion sizes or salt in the choices I make at the all-you-can-eat buffet lunches I share with my buddies; getting the most value for what I pay is more important to me.”

“I take my medicine most of the time anyway, so I should be able to eat what I want...OK, so I miss it a few days a week, but don’t make a big deal out of it. I feel fine.”

Programs and Practices. Most early applications of MI intervention were given in the context of lengthy, repeated psychotherapy sessions and were successful in helping patients change difficult addictive behaviors.

In recent years, with increased prevalence of health detriments like medication nonadherence, sedentary lifestyle, high-fat and high-sodium diet, and smoking and alcohol consumption, the focus of MI intervention studies has shifted to considerations of brief interventions in health care settings. These studies assess the potential for better outcomes through the behavioral management of chronic diseases like T2DM, HTN,

hyperlipidemia, congestive heart failure, human immunodeficiency virus (HIV), asthma/chronic obstructive pulmonary disease, and multiple sclerosis.

Appropriate training in MI equips providers to help patients decide to make changes in health behaviors. These targeted health behaviors may include medication adherence, changes in dietary intake (e.g., reduction in salt intake for HTN management), increased physical activity (e.g., for risk reduction of diabetic complications), and smoking cessation. Nonadherence to these important health behaviors often stems from some form of resistance or ambivalence; MI strategies are designed to explore and resolve the resistance and/or ambivalence that interfere with decision-making for actions that benefit health.

Motivational interviewing is a patient-centered process used to gauge a patient’s readiness to act on a target behavior and to apply specific skills and strategies that respect the patient’s autonomy and facilitate confidence and decision-making. The use of an MI-consistent counseling process increases behavior change by stimulating a patient’s internal motivation for change while addressing any ambivalence or resistance to change. Motivational interviewing includes five specific communication skills and several tools or micro skills to assess readiness for change.

A practitioner can use MI to establish the patient’s understanding of the illness and treatment plan, determine how this treatment plan fits with the patient’s goals for health, address ambivalence and/or resistance, and help the patient start talking positively about the change. In contrast, traditional patient education and advice-giving efforts usually attempt to persuade or convince a patient to make a significant health behavior change by providing external motivation through advice and questioning. Unfortunately, such traditional methods can cause inadvertent shaming, judgments, scare tactics, and even arguments. This kind of counseling approach can increase patient resistance, making the patient less likely to be adherent to the target behavior.

Internal Motivation and Decisional Balance

Any person who thinks about making a health behavior change goes through an internal weighing of the pros and cons for the change before deciding to follow through. This person should think about the last attempt to address a health behavior target. If trying to engage in greater physical activity, the pros may include factors such as better health, risk reduction, more energy, and better fit of clothes. The cons may include lack of time, lack of energy, other responsibilities taking priority, and lack of adequate attire/equipment/facility. If an individual is not taking action (e.g., engaging in physical activity), the cons for making the change are more salient than the pros. This is the *decisional balance*, in which the person will not decide to take action until the

pros for making the change outweigh the cons. Table 1-1 depicts a typical patient’s decisional balance for medication adherence.

The weighing of pros and cons is the actual development of the internal motivation that enables a change and a decision to remain changed. In MI, the process of interviewing helps the patient express salient pros for the change, rather than the provider telling the patient what the pros should be. This process, known as *eliciting*, uses decisional balance to help the patient make the argument for the change while responding to MI-based questions (interview). The patient is led to internal motivations that already exist but that the patient is not actively exploring or thinking about.

External Push Encounters

It is human nature to want to make our own decisions. Although some segments of the population, including a few ethnic cultures, prefer to have their health care provider take directive charge over treatment decision-making, most individuals benefit from participating in decisions about their treatment. This is especially true regarding the health behaviors needed to manage and prevent complications from disease. However, many patient-provider interventions are based on the assumption that patients who obtain information about their health will be motivated to make big changes all at once. This rationale assumes an outside authority or expertise over a patient’s life; in reality, patients are truly the experts about their life and what will and will not work for them.

This *external push* can do more harm than good. Some patients will openly resist further progress, whereas others will say what the pharmacist wants to hear, then leave and do nothing differently. Helping the patient decide to make a change is the focus of the MI-consistent intervention. This type of individual decision is rewarding and empowering to the patient, especially

when recognized and supported by the provider, and is most likely to be sustained.

The Righting Reflex

The desire to help others is foundational to the spirit of MI; it must be present for MI to be genuine and effective. Unfortunately, many clinicians have been trained in a problem-solving, fix-it mode of communication that feels successful and rewarding. This desire to “fix the patient” can supersede the patient’s role in decision-making. As a result, the internal motivation development processes that must take place for the patient to make a lasting change do not occur. The originators of MI refer to this fix-it mode as the *righting reflex*.

The righting reflex is counterintuitive to human nature. We all want to make our own decisions rather than be told what to do. Autonomy is an important part of feeling powerful and productive as a human being. Being powerless and unproductive produces feelings of being stuck and even of depression; this sense of powerlessness and being unproductive can interfere with making decisions about health behaviors. The righting reflex assumes an expertise and authority over what is best for a patient. This reflex is often an instinctive reaction born of some combination of caring and the need to feel successful in getting the patient to do what the provider desires. It is important to become immersed in a concerted patient-centered communication style because a provider-centered approach will leave the provider feeling a loss of face, or esteem, when the patient does not, or will not, do what is advised.

With patients who want to be autonomous, the provider’s righting reflex gets in the way and violates the patient’s face by sending a message that says, “I know what’s best for you [and you do not; therefore, you must be incompetent or incapable].” Most people respond negatively to that message, either consciously or unconsciously, by digging in their heels further and refusing even to talk about change. Some may withdraw and respond dishonestly to smooth over the resulting dissonance they feel.

Because of their training, most providers feel successful and comfortable in the clinician-interviewing mode. An efficient way of getting information quickly, this mode usually involves a series of closed-ended or yes/no questions, followed by unsolicited advice about how to fix the problem. The interview feels autonomous and productive, but it is a provider-centered way of communicating with a patient that usually results in the provider doing most of the talking. A proverbial test of successful MI use is when the clinician uses open-ended questions and other MI-consistent strategies while the patient does most of the talking about his or her experience.

For most clinicians, provider-centered communication has been reinforced at all levels. These encounters can include a highly scientific level of communication

Table 1-1. Example of Patient Decisional Balance for Medication Adherence

Pros	Cons
Control my own health	Dislike the expense
Prevent complications	Inconvenient or complicated regimen
Have more energy	Side effects are unpleasant
Avoid hospitalization	Food interaction with my favorites
Have peace of mind	I feel embarrassed for people to know I have illness
Make my family happy	Represents how ill I am, do not want reminder

with complexity, wording, or acronyms that are beyond the patient's literacy or educational level. This type of provider-centered communication is currently highlighted as the antithesis of the growing body of evidence supporting patient-centered communication. Overcoming the righting reflex is one of the greatest challenges clinicians face when being trained in MI.

THE SPIRIT OF MI

As established by Miller and Rollnick, MI is defined as “a collaborative, person-centered form of guiding to elicit and strengthen motivation for change.” The philosophy underlying the spirit of MI is based on three main tenets: collaboration, evocation, and autonomy. Each tenet is an important component in patient-centered care and communication. The spirit of MI is a foundational way of interacting with patients and includes being patient-centered, collaborative, caring, nonjudgmental, and honestly assertive and directive.

Being patient-centered and collaborative may not come naturally to all clinicians, and this approach may require decision and effort to practice and develop. Setting aside all preconceived notions and judgments about a patient is challenging; however, such notions and judgments can be destructive in a pharmacist-patient relationship, and a conscious decision to set them aside is required.

The spirit of MI involves attentive, active listening and reflecting and includes trying to help the patient feel understood and cared for. This is facilitated through empathic, nonshaming responses, together with the deliberate use of a nonjudgmental, conversational voice tone. The most important thing to remember about MI is that the first priority is building and preserving the relationship, even if the patient leaves without a commitment for change. Chances are that if the spirit of MI is engaged and the patient's autonomy is respected, a seed of dissonance will be planted. The patient will begin to think about the change and, when ready to talk about it, is likely to seek you out.

Many perceive that because MI is patient-centered, it is nondirective and should not include giving unsolicited advice. This is untrue. Using MI appropriately requires an assertive, honest approach that may be directive and gently confrontational. Being direct and honest removes uncertainty, builds trust, and is an important foundation for the spirit of MI. Clinicians often use language that is not direct and assertive to cushion the blow of bad news. For example, “Your hemoglobin A1C is a 10, and that's a *little* higher than where we'd like to see it.” Although this feels less confrontational and like a softer way of delivering the message, it is dishonest and could even send a harmful message. When the patient hears the pharmacist discounting even a 7.2 hemoglobin A1C, the impression is given that it must not be that

important. An MI-consistent statement is more direct and assertive: “Your A1C is a 10, which is high. What are your thoughts about that?” or “Your A1C is high—it is at 10.0. Tell me what you know about what this number puts you at risk of.”

Being direct and assertive requires practice for providers who do not like to confront patients. However, it is an honest way of communicating that will earn mutual respect and trust, which are important to the MI-consistent priority of building and preserving the patient relationship. Foundational to this type of statement, and to the spirit of MI, is careful attention to non-threatening, nonjudgmental, nonverbal behaviors (e.g., maintaining eye contact, using a calm and conversational voice tone, using approachable and responsive body language such as facing the patient directly and nodding to affirm while listening).

ASSUMPTIONS, PREMISES, AND CONCEPTS

Choosing Among MI Strategies

Motivational interviewing includes five main communication principles, several assumptions, and a series of micro skills that help facilitate the tenets described above (i.e., collaboration, evocation, and autonomy). The art of MI is about remaining patient-centered and metaphorically flowing or dancing along as the patient leads the conversation, as opposed to wrestling the discussion to go where the provider wants. This means that when being truly patient-centered, there is no script or algorithm of the right way to respond to every patient every time. Of importance, many different tools can be selected that are equally MI consistent in any encounter. There will always be choices for how to use these skills for engaging one patient versus another or for what helps with a certain patient today versus last time.

Often, MI is referred to as a technique that can be used to motivate the patient. This is not accurate. Stating that one person will apply strategies to motivate another person implies external push or pull, which contradicts the premise that patients need their own internal motivation to decide whether to change a target behavior. Motivational interviewing is about helping patients decide to change by drawing on the internal motivation they already have; this is done by interviewing in such a way that the patient ends up making an argument for the change. This concept illustrates the spirit of MI evocation tenet.

Establishing Patient Understanding About Disease Risks, Clinical Parameters, and Treatments

An important early step in talking with a patient about a health behavior change is establishing the patient's understanding about why the change is important to the management of a particular disease. This means assessing knowledge about the diagnosis, the risks of what happens

from uncontrolled disease, the clinical parameters (e.g., laboratory values), and the possible effects of the drug or target behavior on these. The patient must be able to make the tie between changing the target behavior and reaping the benefits (pros) of doing so with respect to disease and risk control. In the G.H. example of a resistant patient, there were some knowledge deficits. In the following example, a pharmacist response establishes the understanding of risk:

Pharmacist: Mr. H., tell me what you know about how your blood pressure numbers put you at risk.

G.H.: I feel fine most of the time; I don't think it means anything—maybe that I'll have a heart attack someday, but that's not going to happen anytime soon.

Pharmacist: That's right, high blood pressure can contribute to causing a heart attack. May I share some additional information with you? [G.H. agrees]

Pharmacist: High blood pressure doesn't always have obvious symptoms, and that may be why you're feeling fine most of the time. I am worried about the times that you're not feeling good. High blood pressure means risk of stroke and heart attack, especially if the numbers continue to rise. What are your thoughts about that?

This dialogue accomplishes several important strategies. First, it introduces the topic early in the conversation so that it can be tied directly to the target behavior changes. Second, it explores what the patient knows first before giving information, deferring to the patient's competence; this is important for face-saving, and it is also efficient

because the pharmacist then can give only the information the patient does not know. In addition, the risk information that required consciousness-raising came from the patient's own words; this can be thought provoking and reinforcing by itself. Using terms introduced by the patient can seem less like a scare tactic than if they came first from the pharmacist. Another important strategy in this dialogue is preservation of the patient's autonomy (i.e., the right to choose whether to receive the information given). By asking permission to give information, the pharmacist respects the patient and circumvents the potentially damaging effects of the righting reflex.

Micro Skills That Maintain Patient Autonomy

Maintaining patient autonomy is one of the three tenets of the spirit of MI. Three micro skills can be used to support or maintain patient autonomy: open-ended questions, agenda setting, and asking permission before giving advice or information.

Open-ended questions support autonomy and face, but they also elicit more information than closed-ended questions. As described previously about the righting reflex, clinicians trained to ask yes/no questions to gather health information often go through a checklist of questions so that problem solving and advice can be provided. Many patients, when asked questions having dichotomous answers, feel that they are being interrogated and that judgment is rendered on the basis of their response. When only two possible responses exist (yes or no), and the patient's honest response is not what the provider wants to hear, patient perception can be that the provider is right and the patient is wrong. This type of questioning

Table 1-2. Examples of Closed- and Open-Ended Questions

Closed-Ended Questions	Open-Ended Questions
Have you tried walking for activity?	What are some things you can think of to get more activity into your routine? What are your thoughts about walking for activity?
Can you tell me what this medicine is for?	Tell me what this medicine is for.
Can you think of anything to help remember?	What are some things you can think of to remember to take the medicine?
Did you ever miss taking any of your pills?	About how many pills did you miss in the past week?
Did you get your refill on time?	I noticed that the prescription has been ready for a few days. Tell me about any problems you've been having taking it.
Can you tell me what the doctor told you about what it means to have diabetes?	Tell me what you know about diabetes.
Have you been cutting out the salt in your diet to help your high blood pressure?	What is your understanding about the impact of salt in the foods you eat on high blood pressure?
Are you weighing yourself every day? (to monitor CHF)	How has the monitoring/weighing been going this past week?
Your INR is up to 3.3 this time; did you eat any broccoli or other effective foods this week?	Your INR is up to 3.3 this week; what are some things you can think of in your life recently that may be contributing to this?

CHF = chronic heart failure; INR = international normalized ratio.

often puts the patient on the defensive, leaving a feeling of alienation and loss of control. Switching from a closed-ended to an open-ended approach is one of the greatest challenges clinicians face in MI training. If the closed- and open-ended questions in Table 1-2 are contrasted, more information is likely to be offered by the patient with the open-ended format. In addition, the patient is likely to perceive that the pharmacist is person-centered and interested in hearing patient perspectives, not just in problem solving and giving opinions from a provider-centered approach.

Another autonomy-preserving MI micro skill is known as agenda setting. This involves giving the patient choices about which of several topics to talk about first. Often, the pharmacist has in mind something particular to discuss (e.g., salt reduction in foods for HTN management), but the patient's interest is in another topic (e.g., medication taking). Patients are likely to remain anxious about getting their own topic discussed, and may be unable to focus if the pharmacist asserts a provider-centered topic. Agenda setting involves telling patients what topics can be discussed and asking which topic they would like to talk about first. Here is an example from the J.C. ambivalent patient example:

Pharmacist: Ms. C., there are three things we can discuss today to help bring your blood sugar numbers down. These are medication taking, small changes in the foods you eat, and getting more activity into your routine. Which of these would you like to talk about first? [Patient chooses medication taking, and a discussion takes place; this may include evocation through a question like "What are some things you can think of to remember to take your medication?" This involves getting patient input before asking permission to give suggestions, if needed.]

Pharmacist: Now that we've discussed medication taking, which one of the other two topics would you like to talk about?

In addition to preserving patient autonomy, agenda setting is efficient. It helps organize the conversation, even adding some structure, if needed, in a time-limited setting. Going back to the pharmacist statement to J.C., a derivative that asserts the time limit might look like this:

Pharmacist: Ms. C., there are three things we can talk about to help bring your blood sugar numbers down. Because we have only 5 minutes today, which one of these would you like to talk about this time? OR Because we have only 5 minutes left in our time together today, which topic would you like to talk about next? OR Now that we've talked about medication taking and have only 5 minutes left in our session, which one of the other two topics would you like to talk about next?

If the pharmacist's time is limited, a boundary and structure to the conversation can be set in an MI-consistent manner. Although it sounds provider-centered, the patient should be told up front in an honest, assertive manner that a time constraint exists. This approach is much more comfortable for both pharmacist and patient than not setting the boundary up front but inserting it unexpectedly and awkwardly at the end. ("So sorry, Ms. C., I hate to cut you off—I realize we're out of time, and I guess I should have told you up front that we had only 15 minutes to talk.") When met with an unexpected cutoff, the patient may feel unimportant and think the pharmacist just did not want to continue listening. However, if discussed up front, the patient will not have doubts when the encounter has to end as expected.

If the pharmacist is practicing in a setting with open time or appointments, another strategy is to use an open-ended question such as "What type of strategies would you like to talk about today for bringing your blood sugar down?" OR "What concerns you today?"

The third micro skill for preserving patient autonomy involves asking permission before giving information or advice. In talking with a patient and realizing a knowledge deficit exists, the righting reflex prompts the pharmacist to respond with an argument ("yes, but..."). This is often followed by evidence-based information or inadvertent scare tactics. These responses are not MI consistent and can do more harm than good to a change intervention. When a pharmacist feels the righting reflex emerging, together with a strong desire to give information or advice, the best approach is to step back and apply the episodic steps in Box 1-4. These steps can help fulfill the evocation tenet of the spirit of MI.

This autonomy-preserving, systematic process is a treatment for the provider's righting reflex. An example of this process can be seen in the dialogue with the resistant patient, G.H., in the previous section about establishing patient understanding regarding risks and susceptibility. Permission-asking can be direct (e.g., "May I share some information with you?") or indirect (e.g., "I'd like to tell you about your blood pressure, if you don't mind" OR "If it's OK with you, I'd like to recommend a few things you can do to remember to take your medication"). Asking permission to give information or advice is another MI-consistent strategy that clinicians find challenging when being trained in MI.

Box 1-4. MI Steps to Address Knowledge Deficits

1. Ask what the patient knows about the topic or what he or she can do.
2. Affirm that information, if any.
3. Ask permission to fill in the blanks.
4. Give the information or advice.

MI = motivational interviewing.

Change Talk Predicts Action

A person internally decides to make a change when the salience of the pros outweighs the cons. Humans who are ambivalent or resistant may focus more on the cons to rationalize why the target change is not being made. When the cons are verbalized by the patient, the reasons for not changing are reinforced. Even though patients may know the pros or benefits of making the change, they may not verbalize them because they have been forced to defend the cons in response to judgmental assertions by significant others or providers.

Asking the patient questions to elicit the benefits of making a change can be powerful for many reasons. First, the list of benefits comes from the patient, not from others. Second, the process of thinking about and verbalizing the benefits of a behavior change can be a fruitful self-evaluation for the patient, conjuring internal motivations. Recent MI intervention research suggests that one of the significant predictors of change comes when the patient engages in *change talk*. Change talk is a form of intention to change, or intention to think about changing. Change talk refers to patient statements that express acceptance or movement regarding a target behavior. These may include expressions of a plan or goals for engaging, the importance or benefits of the behavior, or even thoughts about making some change in the behavior. Verbalizing intentions is predictive of taking action.

The pharmacist can ask certain questions to engage the patient in change talk. These include what the patient knows about the benefits of making the change (e.g., “What do you see as the benefits of losing weight?” OR “If I were to ask you to write down your pros for losing weight, what would be your top three?”). Another strategy is to have the patient talk about previous successes and what, specifically, made them successful (e.g., “When you were able to quit smoking for 6 months last time, what were some of the things you did that worked for you?” OR “When you brought your A1C down before, what were you doing that helped you succeed?”). A third strategy is to have patients talk about how they *felt* during previous successes (e.g., “How did you feel when your blood pressure came down after you decided to start taking your medicine?”). A fourth strategy is to visualize what life would be like if the change occurred (e.g., “If you lost the 30 pounds you’ve set as your goal, what would you then like about your life?” OR “How would it feel to you if taking the medicine regularly brought your high blood sugar down, reducing your risk of the complications you mentioned?”).

A fourth strategy for eliciting change talk is to use what is referred to as a *ruler*. The ruler involves asking a series of questions about the patient’s readiness, importance, or confidence for engaging in the target behavior. Examples of the readiness ruler are provided below. The ruler is typically anchored on a scale from 1 to 10, with 1 being not at all ready or confident or important and 10 being

completely ready or confident or important. The patient responds with a rating and the follow-up questions elicit the change talk.

Pharmacist: On a scale of 1 to 10, with 1 being not at all and 10 being completely, how ready are you to reduce the salt in your diet to control your blood pressure?

Patient: Well, probably about a 7.

Pharmacist: A 7 is great! Why a 7 and not a 1?

The patient’s response expresses his or her motivators for the change; this is change talk. In addition, the pharmacist’s initial comparison of the 7 with the 1 is intended to encourage the patient’s confidence in that it sends a subtle message that the pharmacist recognizes that the patient is higher than the minimum. The pharmacist’s second follow-up question should be:

Pharmacist: What would have to happen for it to be an 8 or 9?

This follow-up question also elicits motivators, or change talk, while emphasizing incremental change rather than complete change at a level the patient may not feel ready for or confident about (i.e., 10).

Setting Incremental, Specific Goals for SE Building

Much of the language usually used in discussing health behavior change implies big, intimidating change (e.g., diet, exercise, quitting). For some patients struggling with change, just hearing words with change connotation causes a motivational hesitation. Resistance sets in because of fear of failure, particularly for patients who have not been successful at these changes in the past.

Self-efficacy describes a person’s confidence in his or her ability to engage in a specific behavior. For the patient with a previously unsuccessful attempt at a target behavior, SE can be low and will affect access to any internal motivation that may exist. Particularly for the patient with low SE, the use of big words and the setting of large goals (e.g., “cut out all the fat from your diet to bring your cholesterol down”) can do more harm than good and may result in the patient’s being less likely to engage in the change. Self-efficacy is a strong predictor for taking action, and SE theory suggests that small successes in a given target behavior lead to small increases in SE. The hope is that with incremental and progressive successes, SE will increase, as will the likelihood for additional and continued action for goal accomplishment.

Therefore, for the patient who drinks six sugar-sweetened beverages a day, a question should be posed about a reasonable goal such as reducing the daily number of sugar-sweetened beverages during the first week. This reduction may be by only one beverage, but it is hoped that success at cutting one beverage will help the patient subsequently decide to cut two. For the smoker unwilling

to quit or unconfident of quitting, asking permission to suggest a goal for cutting back the number of cigarettes smoked per day is an MI-consistent strategy (e.g., “May I tell you what has worked for other patients I’ve worked with? [yes] They found it more feasible to cut back on the number of cigarettes smoked per day than to quit altogether. What do you think about that?”).

In all respects, pharmacists should carefully consider the language used to convey these messages so that they do not inadvertently scare the patient away from making some type of incremental change. The American Association of Diabetes Educators (AADE) has long followed this philosophy in the language used to express emphasis on the seven core behaviors needed for diabetes self-management. For example, AADE refers to exercise behavior as “being active” and diet changes as “healthy eating.” The pharmacist engaged in comprehensive disease management could discuss target health behaviors with phrases like “small changes in the foods you eat can help bring down blood sugar,” “there are ways to get more activity into your routine to help reduce your cholesterol,” and “think of the number of cigarettes to cut back on per day for the first week to help lower your blood pressure.” Tying the behavior back to the health goal, as in these statements, also reinforces the patient’s awareness about susceptibility, as previously described, and reinforces that there are available actions the patient can take to get control over health.

CORE MI COMMUNICATION PRINCIPLES

Motivational interviewing includes the use of five main communication principles. These principles are (1) expressing empathy, (2) developing discrepancy, (3) supporting SE, (4) rolling with resistance, and (5) avoiding argumentation. Because the last two are very similar, they are often described together.

Expressing Empathy

Expressing empathy is not only an MI communication principle, it is also a foundational component of the spirit of MI. The expression of empathy, especially right after a patient expresses strong emotion, helps the patient feel the provider is listening and trying to understand. Many patients overtly express their feelings out of a need for somebody to understand what they are going through. These instances are particularly important to respond to (e.g., “I can’t believe I have diabetes [patient with newly diagnosed diabetes]”; “I just really don’t want to inject myself because I have a fear of needles”; “My doctor made me so mad when he said that to me”). Feeling understood can help alleviate anxiety, which can interfere with the patient’s ability to effectively listen to the information given by a provider.

True empathic responding goes beyond listening and reflecting; it involves carefully paying attention to

the underlying feeling experienced by the patient (e.g., “The thought of enduring a bowel preparation for a colonoscopy seems uncomfortable, and that worries you” OR “This must be discouraging to you”). Trying to understand a patient, and expressing that through empathy, helps build trust in the relationship. Empathy is not sympathy (e.g., “I am sorry...”); instead, empathy focuses on the patient and the underlying effect: “It is unfair that your mother died of a heart attack at such a young age.”

Because expressing empathy does not come naturally to most people, it requires a conscious effort to put aside judgments to understand a patient’s feelings. Most providers will need to think about and actively decide to put on an empathic mind-set and may even need to practice openings to empathic statements. Some openings may include statements like “You seem [angry, or upset, or worried],” “You sound [discouraged, or frustrated, or upset],” “It sounds like [this has been hard for you, or you are angry about this, or this has been unfair for you]”. One common misconception is that “I understand...” is an empathic statement. This phrase may feel patronizing or condescending to many patients; it is unlikely the provider fully understands, and even if so, using this statement draws attention back to the provider and away from the patient. For those who use this statement regularly, awareness and patience are required to remove it from their vocabulary.

Developing Discrepancy

Developing discrepancy is often somewhat confrontational and involves creating a motivating dissonance in a patient. This strategy, which is meant to be thought-provoking, can help a resistant patient begin to think about change. In the ambivalent patient, it may tip the decisional balance scale toward action. The strategies and examples in Box 1-5 can help accomplish this goal.

Box 1-5. Strategies for Developing Discrepancy

1. Repeat the pros and cons the patient states.

“So, on the one hand, you want to check your blood sugar because you’re looking for peace of mind, but on the other hand, you don’t want to because you don’t like to stick yourself.”

2. Ask about behaviors that do not support the goals the patient states.

“Mr. G, your medicine has been ready for pickup for a couple of weeks, and I’m concerned that you’re not getting optimal benefit from it; what are your thoughts about how this might affect the goal you told me last time about reducing your risk of stroke or heart attack?”

3. Ask thought-provoking questions.

“What would have to happen for you to think about quitting smoking?”

When implementing this strategy, it is important to use compassion and a nonjudgmental tone of voice. Because the strategy is confrontational (i.e., highlighting what the patient is not doing regarding the target behavior), the patient may feel judged and become defensive unless the provider uses careful attention to voice tone and nonverbal communication.

Supporting SE

Self-efficacy has been a significant predictor of engagement in many different target health behaviors. Confidence in the ability to engage in the behavior is an important contributor to making a change and sustaining it. The role of the pharmacist in helping support a patient's confidence to engage in target behaviors can be important. Participation can simply involve noticing, encouraging, and supporting patient attempts, or even thoughts, about change. Some statements might include the following:

"Ms. C., you are well on your way to better health because you are thinking about lowering your cholesterol."

Be sure to praise the behavior, not the person:

"Mr. G., it's great that you completed your scheduled screening as you planned."

"Taking your medicine regularly as you have been doing will really help you continue to bring your blood pressure down."

The pharmacist can play a significant role in boosting a patient's SE. It is important not to overpraise; this can sound insincere and will dilute the impact of statements meant to support SE.

Rolling with Resistance and Avoiding Argumentation

Rolling with resistance and avoiding argumentation are similar strategies. Many providers who hear patients make resistant or irrational statements often instinctively follow with a "yes, but" response, which forces the patient to become defensive. The key to these two MI principles is to focus on the foundational objective of relationship building and not to be drawn into an argument; these strategies focus on being on the same side as the patient and collaborating for problem solving and goal setting.

It is helpful to practice ignoring antagonistic statements and personal attacks. Recognize that resistance is information to be explored, and stay with the underlying issues to stay focused on the topic. The patient expects the pharmacist to join the argument; when the pharmacist does not engage in an argument, thought-provoking behavior occurs, which can plant a seed of trust.

Note the following example:

Patient: "What do you know? You don't have to take all of this medicine. Having to take medicine every day

makes me feel defective, like I can't even control my own health."

Pharmacist: "You sound discouraged, Mr. G. I hope you will come to see the medicine as something that will help you gain control over your health. What are your thoughts about that?"

Resistant Patients and Other MI Applications

Communicating with resistant patients can be among the most stressful of patient encounters. Many providers who talk with a resistant patient will avoid the resistant topic, change the subject, find themselves in an argument, or end the conversation. To keep the relationship the top priority, it is important first to explore the resistance with open-ended questions ("Tell me more about that"), or use a ruler as described previously. If the patient remains resistant or reports that the number on the scale is the minimal anchor, it is important to respect the patient's right to be resistant, even if the clinician does not agree with it. This is challenging for the clinician who feels a duty to give information and help the patient commit to taking action, and who feels successful only if the patient does so. For the patient unwilling to receive information or make a change, forcing it will only do more harm than good; it disrespects the patient, leads the patient to defend, and reinforces the cons for change.

Two strategies are recommended to use with a patient who remains resistant after exploring and developing discrepancy. The first strategy is simply to ask the patient, "May I tell you what concerns me?" This strategy respects the patient's resistance by asking permission to give information, expresses concern so that the patient can hear the provider's desire to give information because of a caring motive, and opens the door to express the patient's risk if the target behavior is not changed. After delivering the information, an open-ended question should follow to bring the conversation back to the patient in a nonthreatening manner ("What are your thoughts about that?").

The second potential strategy is to emphasize personal choice: "It really is your decision; all I can do is tell you the advantages and disadvantages of taking the medicine. But only you can decide to take it." This strategy can be powerful for a patient who feels beaten down by a sequence of providers who have advised, judged, and shamed. The patient is resistant and expecting an argument that disrespects her feelings; when she receives respect and the "ball is placed back in her court," this can cause thought-provoking behavior and create healthy dissonance. Even if the patient does not decide at that moment to change, it is likely to prompt thoughts about change, and it will certainly support the development of the type of trust needed for the patient to begin talking about making the change.

When patients are unwilling to change, the only appropriate patient-centered response is to respect the

patient's right to be resistant. An optimal response might include, "It is clear you aren't ready to quit or cut back on smoking; if you decide at some point that you would like to talk about it or explore other options, I would like to help you. I hope you will see me as a resource for information when you are ready." Leaving the door open for the patient to return is a caring strategy and can lead to thought-provoking behavior if the patient is struggling with ambivalence or resistance.

Providers who have embraced MI have generally been satisfied with using these techniques. Some have expressed that these techniques make the interview process more efficient, even in a brief encounter. Simply engaging the spirit of MI can help the patient feel understood or supported; these communication intentions can be used in an encounter as brief as one or two exchanges. Many providers trained in MI have expressed that it changes the dynamics of their personal relationships as well. Learning to communicate in a person-centered manner can affect interactions with patients, family, significant others, colleagues, and other health care providers. Pharmacists have used MI with physicians to influence their prescribing to be more evidence-based. Exploring resistance and responding with early empathy are effective ways of maintaining the respect and autonomy physicians expect when communicating with other providers.

CONCLUSION

For most, MI represents a change in communication skills that may not come naturally. For pharmacists who may be interested in adopting this evidence-based, patient-centered strategy, here are three final thoughts. First, just as incremental goals may be set for patients to help develop SE, so can incremental goals be set for making a change in practice behavior. For example, the first or second week could only involve making efforts to listen, express empathy, and support SE, with subsequent goals for progression in complexity of skills adoption. Second, seeking quality training is essential. Learning theory research suggests that adult learners must develop the cognitive aspects of a skill before applying it. Research has shown that good training in MI will involve 16–30 hours of cognitive development and skills development exercises that include role-playing with feedback and follow-up training when feasible. The feedback process is critical to learning a new skill and is particularly critical to successfully adopting MI skills in communicating with patients. Yet without cognitive development, trying to apply the skills in role-playing is unlikely to be successful, and the pharmacist may not have confidence or desire to try again. Third, acquiring MI skills is a process, not an event. Allowing time and practice for maximal development may very well be career- and life-changing.

ANNOTATED BIBLIOGRAPHY

1. Britt E, Hudson SM, Blampied MV. Motivational interviewing in health settings: a review. *Patient Educ Couns* 2004;53:147–55.

This literature review assesses MI as an intervention in a variety of health care settings. In addition to a description of the origins of MI in the alcohol and substance abuse literature, this article describes the literature addressing lifestyle changes within a comprehensive disease management context and interventions occurring in health care settings. The article includes an overview of MI and has a descriptive section that compares MI with several other prevailing health behavior theories and models (e.g., locus of control, theory of reasoned action, social cognitive theory, health belief model). The authors conclude with recommendations for adapting MI encounters to health care settings, including the need to develop and use MI skills for brief encounters, even if the encounters involve just listening and helping patients feel understood.

2. Golin C, Earp J, Hsiao-Chuan T, Stewart P, Porter C, Howie L. A 2-arm, randomized, controlled trial of a motivational interviewing-based intervention to improve adherence to antiretroviral therapy (ART) among patients failing or initiating ART. *Acquir Immune Defic Syndr* 2006;42:42–51.

This study used a clinic-based two-arm randomized controlled trial design to compare the adherence of patients receiving MI with that of patients receiving a dose-matched HIV information control program. Participants in both groups received three components: (1) a 20-minute audiotape and booklet before seeing their primary care provider, (2) two face-to-face sessions with a health educator at 4 and 8 weeks' follow-up, and (3) a mailing 2 weeks after each individual session. The MI intervention focused on patient concerns that were salient; confidence-boosting letters that reviewed the issues discussed in the previous MI session were mailed 2 weeks after each session. Conducting the MI sessions were three health educators with master's degrees who received 24 hours of MI training. The primary outcomes were mean adherence level (percentage of prescribed doses taken in the previous month) at the 12-week visit, change in mean adherence, percentage of patients achieving greater than 95% adherence in the third 4-week block, and change in viral load. The results revealed that the MI group's mean adherence improved 4.5% compared with a decrease in the control group's adherence (3.83%; $p=0.10$). For the MI group, 29% achieved greater than 95% adherence compared with only 17% in the control group ($p=0.13$). Controlling for ethnicity, the MI group had a 2.75 times higher odds of achieving more than 95% adherence than did the control group ($p=0.045$). Several mediating variables (e.g., beliefs about antiretroviral therapy, coping style, social support, goals set) showed statistically significant changes in the expected direction of the MI group compared with the control group; however, the intent-to-treat analysis for mean adherence at the study

conclusion revealed 76% for the MI group and 71% for the control group. This study provides some evidence that MI offers an effective approach for helping patients decide to improve adherence.

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This trial established whether MI was more effective for successful smoking cessation than antismoking advice. The study randomly assigned 200 participants to either the antismoking advice group (n=86) or the MI group (n=114). Patients in both groups were assessed at baseline, 6 months, and 12 months. Patients' general practitioner physician recruited participants during a regular office visit. Exclusion criteria consisted of the existence of a severe psychiatric disorder, a terminal illness or drug addiction, or age younger than 15 years or older than 75 years. The MI group received three 20-minute MI sessions during the study. There were no established time intervals for conducting the second and third MI sessions; subsequent sessions with the physician were set up at the patient's convenience. Outcome measures consisted of assessing smoking habits at 6 and 12 months after the intervention by measuring the number of cigarettes smoked per day, the degree of nicotine dependency, the stage of change, and the carbon monoxide in expired air. The final primary outcome measured was a success index, which was the point prevalence of abstinence at 6 and 12 months after intervention. The measure of effectiveness of the treatment for quitting smoking showed that the MI group action was 5.2 times higher than the antismoking advice group after both 6 and 12 months (18.4% compared with 3.4%; $p=0.00$ and 0.001 , respectively). The results show that MI is more effective than brief anti-smoking advice for quitting smoking.

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This trial tested the efficacy of an intervention designed to support antiretroviral drug adherence among primarily low-income men and women with HIV. Participants were recruited from an HIV/AIDS clinic in the Atlanta, Georgia, area; 247 participants completed the baseline assessment and were assigned to the intervention (n=125) or control (n=122) group. Participants were beginning antiretroviral therapy or changing to a new drug regimen. The intervention consisted of five MI sessions delivered by registered nurses who used individual counseling sessions; patients were compensated (\$25 cash, two tokens for public transportation, and a snack) for each session attended. The primary outcome measure was medication adherence, assessed with the MEMS (Medication Event Monitoring System) from baseline to 12 months afterward. Patients in the MI group showed a trend toward a higher mean percentage of prescribed doses taken

and a greater percentage of doses taken on schedule compared with the control group during the postintervention data collection period.

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This case-control study examined the effect of a 10-week intervention on selected measures of fitness, blood lipids, and exercise adherence among 67 police officers—54 men and 13 women—in the southeastern United States. Each study participant engaged in one of six “high-performance training” seminars that were offered for 6-month periods, with a different group of officers in each seminar. At the end of each seminar, officers were invited to enroll in a 10-week program intended to improve their fitness, nutrition, and lipid profiles. Baseline measures collected include body composition measured by a Lange skinfold caliper, blood pressure, cardiovascular fitness measured by VO_{2max} , and muscular strength assessed with a universal weight machine. The intervention began with a 3-hour group seminar that used a workbook, a DVD, group member interaction, and a lecture. Each participant created a self-regulation action plan, which consisted of determining the details of developing a habit of regular exercise during the week including the type of exercise, exercise location(s), days of the week and times of day the exercise would occur, availability of social support, and other related items. The performance coaches who supervised these action plans were graduate students trained to supervise intervention content in exercise and nutrition. Weekly MI meetings were scheduled with each subject in the police fitness facility or the officer's office. The results indicate that the officers statistically significantly improved on four measures of their physical fitness and blood lipid profile scores (6.87% reduction in total cholesterol, 15.03% reduction in low-density lipoprotein) from pre- to postintervention. Thus, MI appears to markedly encourage selected changes in health behaviors among police officers.

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In this trial, military personnel including 785 active duty participants from 24 military dental clinics across the United States were assessed at baseline, 3 months, and 6 months. Usual care was compared with a minimal contact intervention set that included a smokeless tobacco cessation manual, a videotape cessation guide tailored for military personnel, and three 15-minute telephone counseling sessions using MI. Participants in the intervention group were significantly more likely ($p<0.001$) than those in the usual care group to be abstinent at 3 months (25% vs. 7.6%) and 6 months (16.8% vs. 6.4%). Results suggest that an MI-based intervention, structured with minimal contact (e.g., brief

telephone encounters), has an impact on a challenging health behavior target like smoking cessation.

7. Miller WR, Rollnick S. Ten things motivational interviewing is not. *Behav Cogn Psychother* 2009;37:129–40.

This article is a commentary from the originators of MI about the evolution of MI and the 10 most common misperceptions about it. This article further elucidates MI as an internationally tested, evidence-based intervention strategy set for health behavior change. The authors point out 10 things as follows. (1) Motivational interviewing is not based on the transtheoretical model of change. (2) Motivational interviewing is not a way of tricking people into doing what they do not want to do. (3) Motivational interviewing is not a singular technique. (4) Motivational interviewing is not a decisional balance. (5) Motivational interviewing does not require assessment feedback. (6) Motivational interviewing is not a form of cognitive behavior therapy. (7) Motivational interviewing is not just client-centered counseling. (8) Motivational interviewing is not easy. (9) Motivational interviewing is not what you were already doing. (10) Motivational interviewing is not a panacea. The updated definition of MI the authors offer is “a collaborative, person-centered form of guiding to elicit and strengthen motivation for change.”

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This article is a meta-analysis of MI intervention studies across several health behaviors, including alcohol abuse, smoking, drug use, treatment adherence, gambling, water purification/safety, eating disorders, and diet and exercise, as well as studies across diverse populations including ethnic minorities. This article summarizes a significant evidence base for MI as a health-behavior change intervention. The article incorporates discussion about the impact of analyses and methods in the literature, including how the effect size factors into the analysis of existing MI studies and how a lack of homogeneity of methods and analyses challenge comparison across studies. The discussion section of the article points out the characteristics of providers, populations, target behaviors, and settings and how they contribute to the reported variable effectiveness of MI interventions. The authors discuss contributions to the conversation about a theory of MI and present research into how clinicians develop proficiency in MI.

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This randomized controlled trial enrolled 60 senior adults with chronic heart failure; a physical activity lifestyle intervention with an MI approach was compared with conventional treatment. The target outcome variable was quality of life, as measured by the generic Medical Outcomes Short Form-36 and the disease-specific Minnesota Living with Heart Failure

questionnaire. The study lasted 5 months and revealed significantly improved scores for motivation and three dimensions of the quality-of-life scores in the MI group compared with the scores in the usual care group ($p < 0.05$).

10. Miller WR, Rose GS. Toward a theory of motivational interviewing. *Am Psychol* 2009;64:527–37.

This article gives an overview of the history of MI development and dissemination by one of the original authors and a colleague. The perspectives on how the MI clinical style emerged contribute to understanding MI as a whole as well as its subsequent components and concepts. The review and commentary address mixed findings; multisite trials (including Project MATCH for alcohol abuse); and a critical view of the rigor of methods used in MI trials, including intervention fidelity (or lack of it) in many trials, and variability in the length and type of MI training for providers of study interventions. The authors also discuss the role of change talk in helping patients decide to change and the way in which the presence of change talk is a significant predictor of actual behavior change. The discussion section also addresses the problem of disingenuous change talk.

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This commentary reviews the potential of MI as an intervention tool for pharmacists to use in counseling patients about medication adherence. The authors review some of the evidence base for MI among the target health behaviors needed for comprehensive disease management. The article (1) presents an overview of the lateral comparison with the stages of change of the transtheoretical model of change, (2) gives an overview of MI's basic assumptions, (3) compares and contrasts traditional counseling with MI, (4) describes the key principles of MI, (5) describes a general approach to using MI in a patient interview, and (6) reviews and discusses the literature for MI applications in adherence to drug therapy. The article concludes that MI can be an effective communication tool for pharmacists when talking with patients about adherence to their drug therapy.

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This systematic review included studies that focused only on MI as an intervention for comprehensive disease management administered in actual physical health care settings. Of the original 51 abstracts identified in the initial search, 8 were retained for review and included focuses on diabetes, asthma, HTN, hyperlipidemia, and heart disease. The MI intervention positively affected psychological, physiological, and lifestyle change outcomes in most of the retained studies. As with other reviews, the conclusions of this review

were limited by the heterogeneity of target outcomes, methods, and analyses, as well as small sample sizes. A call was made for additional research in health care settings using MI as an intervention.

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This review examined the literature exploring the impact of MI in emerging areas of focus including diet and exercise, diabetes, and oral health. The review included 37 heterogeneous studies; studies varied not only across disease/behavior targets but also in design, populations, outcomes variables, and measures. It was not possible to make direct comparisons, but the authors concluded from the general findings that MI is an effective intervention for helping patients decide to change health behaviors in the context of diabetes and lifestyle change in general. In addition, results specific to the diet and exercise targets suggest that providers beyond nutritionists should use MI to continue the conversation with patients about engaging in behaviors that help treat current conditions and prevent future conditions. The authors also support the importance of change talk as an important mediator to behavior change.

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This meta-analysis of the evidence for MI intervention in different areas of disease showed a significant effect of MI on body mass index, total blood cholesterol, systolic blood pressure, and blood alcohol concentration, but nonsignificant effects for changes in cigarettes per day and hemoglobin A1C. Overall, psychologists and physicians achieved an effect in around 80% of the 72 randomized controlled trials included; other health care providers achieved a significant effect in 46% of studies. In addition, brief MI encounters (e.g., 15 minutes) were effective in 64% of studies. The authors concluded that several MI-based encounters have more impact than a single encounter, and that MI outperforms traditional advice giving when treating various diseases.

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Several previous reviews and meta-analyses have concluded that many MI studies are limited by either lack of adequate training of MI interventionists or lack of reporting the level or type of MI training for providers who conducted the MI interventions. This systematic review examined rigorous MI intervention studies for how well they addressed the eight stages of learning MI in the training used for providers conducting the interventions. Twenty-seven articles were included from medicine, general health care (e.g., nutrition, exercise), substance abuse, and general mental health. Using the results of the review and Miller and Moyers' eight-stage

model of MI training, recommendations are made that suggest brief training without skills development exercises and feedback/coaching helps comprehension and some of the skills but does not result in full-scale use in practice. This is a landmark study regarding the state of, and recommendations for training in, MI.

SELF-ASSESSMENT QUESTIONS

Questions 1 and 2 pertain to the following case.

S.D. is a 57-year-old woman who comes to your pharmacy to pick up her prescription for metoprolol. You begin a conversation with her because you see a pack of cigarettes on top of her purse.

1. **In discussing smoking cessation with S.D., which one of the following statements best expresses the spirit of motivational interviewing (MI)?**

- A. "I see that you are still smoking; you should let me work with you to help you quit."
- B. "Your blood pressure is still high; tell me what you know about things you can do to help lower it."
- C. "I understand that this has been hard for you; let me tell you some ways you can lower your blood pressure."
- D. "Quitting smoking is hard, but it really is important to preventing complications from heart disease."

2. S.D. responds that she is unwilling to quit smoking, and is unwilling to talk further about it. **Which one of the following responses is most consistent with the spirit of MI?**

- A. "I am really worried that you may not understand what I have to say; it will benefit you in the long run."
- B. "Do you think you're going to see improvement in these lab values if nothing changes?"
- C. "It really is your decision; I can give you my opinion, but only you can decide for yourself if you're going to take this medication as prescribed."
- D. "You really need to get this information before you leave; I'm worried about you."

Questions 3–7 pertain to the following case.

G.H. is a 58-year-old man with type 2 diabetes mellitus (T2DM) and hypertension (HTN). He is resistant to many changes that will affect his T2DM and HTN outcomes. A comprehensive disease management encounter between G.H. and his pharmacist included medication therapy management and other lifestyle changes to optimize disease outcomes. **For each of the following statements by G.H., choose the one pharmacist response most consistent with MI principles.**

3. **G.H.: "I know I need it, but I don't like the idea of having to take another drug every day."**

Pharmacist:

- A. "It's a good thing you can afford to take another medicine every day."
- B. "Do you understand why this is necessary?"
- C. "You don't like having to depend on taking medicine."
- D. "It's really your choice."

4. **G.H.: "I never used to have to take so much medicine. I don't like getting old."**

Pharmacist:

- A. "Even young people have to take drugs."
- B. "Growing older has been difficult for you to accept."
- C. "You are healthy otherwise."
- D. "What concerns you the most about this medicine?"

5. **G.H.: "I'll take the medicine. I just don't like that I have to take it to be OK."**

Pharmacist:

- A. "You do need to take it. What would have to happen for you to be OK with taking the medicine?"
- B. "I understand. It is for your own good, though."
- C. "You really do need to take the medicine each day."
- D. "I believe that taking the medicine is the best decision for controlling your blood pressure."

6. **G.H.: "I know I need to exercise also, but 3 days a week after work seems like a bit much... especially 30 minutes of walking each time. I am pooped when I get home."**

Pharmacist:

- A. "I think you will find that it really isn't too hard to incorporate into your daily routine."
- B. "Being tired is a barrier for you to exercise."
- C. "Maybe you won't feel so tired if you try exercise."
- D. "Could you try to exercise on 2 days a week?"

7. **G.H.: "I am just not willing to do this after work for 4 days a week right now."**

Pharmacist:

- A. "Is that your final decision?"
- B. "I really wish you would reconsider."
- C. "What are you willing to do right now?"
- D. "This really could help both your DM and HTN."

Questions 8–10 pertain to the following case.

M.C. is a 68-year-old woman who is overweight and has HTN. She presents to your pharmacy, where the following dialogue takes place:

Statement 1. M.C.: “Hi. I have a bad cold and fever; I’m here for the medicine my doctor called in.”

Statement 2. Pharmacist: “OK, before I give you the new medicine, I need to ask about your blood pressure medicine. I see that you’re about 3 weeks late picking up the refill. Why is that?”

Statement 3. M.C.: “Well, I should get that one, too, but I really can only afford one medicine today, so I’d better just get the new one today so that I can get this cold taken care of; I feel awful, and I am miserable from it. I still have some left for the blood pressure medicine, anyway. I am taking it regularly.”

Statement 4. Pharmacist: “I see. However, if you’re taking it regularly, you shouldn’t have some left. I see that it’s been about 3 weeks since you were last due to get it filled. Maybe if you could start back on track today, you could reduce your risks of uncontrolled hypertension.”

Statement 5. M.C.: “I take it almost every day. It’s just that I don’t have any extra money, and my rent went up, so I have to cut somewhere; I have a pill splitter, and I take half a pill most days. Hey, it’s better than not taking it at all.”

Statement 6. Pharmacist: “You are putting yourself at risk of being sicker than having a cold by not taking care of your blood pressure. Are there other things you can do instead of omitting your medicine to cut back?”

8. **Regarding statement 2, which one of the following describes the most significant violation of the spirit of MI?**

- A. The pharmacist focuses on the patient’s failure (for being late picking up the medication) instead of on the patient’s behavior (the prescription has been ready for 3 weeks).
- B. The pharmacist does not give an early empathic statement in response to the patient’s statement about having a bad cold and fever.
- C. The wording of this statement sounds like an interrogation is about to take place.
- D. It is provider-centered when the pharmacist says, “Before I give you your new medicine, I need to ask you about your blood pressure medicine.”

9. **The pharmacist shows the righting reflex at the end of statement 4. Which one of the following replacement statements would be most consistent with the spirit of MI?**

- A. “Can you think of ways to get back on track?”
- B. “Can you think of things you could do to reduce your risks of uncontrolled hypertension?”
- C. “On a scale from 1 to 10, what is your level of commitment for getting back on track?”
- D. “Tell me what you know about how the medicine affects risks of uncontrolled hypertension.”

10. **As a response to the patient’s statement 3, which one of the following statements would be most consistent with the spirit of MI?**

- A. “It sounds like it’s been a tough time with trying to deal with expenses and now with the terrible cold you’re suffering from.”
- B. “What can I do to help you?”
- C. “On the one hand, you want to fill the prescription; on the other hand, you don’t have enough money to do so.”
- D. “What are some things you can think of to resolve your situation, besides taking half the recommended dose?”

Questions 11–14 pertain to the following case.

M.K. is a 38-year-old woman who is obese and has T2DM. The pharmacist has been talking with her about health behaviors to help manage her diabetes and now shifts the conversation to talk about healthy eating strategies.

Statement 1. Pharmacist: “What are your thoughts about making some small changes in some of the foods that you eat?”

Statement 2. M.K.: “I know what you’re going to say—the same thing my doctor said—that I have to quit eating that nightly bowl of ice cream. I am just not interested in giving up something that I enjoy as a relaxing treat at the end of my hard day.”

Statement 3. Pharmacist: “It sounds like you really like ice cream and that it is relaxing to reward yourself for finishing a hard day.”

Statement 4. M.K.: “Exactly.”

Statement 5. Pharmacist: “Tell me what you know about how eating ice cream affects your diabetes.”

Statement 6. M.K.: “I know it’s bad for me, and I know it’s bad at that time of night. I still don’t want to cut it out.”

Statement 7. Pharmacist: “You are clear that you aren’t ready to give up the ice cream at night.”

Statement 8. M.K.: “That’s right.”

Statement 9. Pharmacist: “What are your thoughts about strategies you could try for keeping it in your diet while making small changes that could benefit your blood sugar levels?”

Statement 10. M.K.: “I thought I would have to cut it out entirely. What strategies?”

Statement 11. Pharmacist: “That’s great that you’re willing to hear options. Some patients have affected their weight and diabetes by cutting back on portion sizes or switching to less-fattening or lower-sugar ice cream options. What are your thoughts about trying any of these options?”

Statement 12. M.K.: “I’ve never tried any of those things; I don’t think I would like them as much.”

Statement 13. Pharmacist: “May I tell you what concerns me?” [yes]

Statement 14. Pharmacist: “It’s great that you’re doing a lot of hard work to change other things in your eating habits and physical activity; yet your weight and hemoglobin A1C have continued to rise despite all of your efforts. The ice cream may really be contributing significantly to the increases in your weight and A1C. What are your thoughts about making one of the small changes regarding the amount or type of ice cream?”

Statement 15. M.K.: “I know I should do something—if I ate half the amount I usually eat, I could also save some money.”

Statement 16. Pharmacist: “That’s great that you’re thinking about cutting back on portion size—that should be helpful. What portion size do you think is realistic for you to work on reducing to for this coming week?”

11. Which one of the following is the best MI-based rationale for the pharmacist’s statement 1?

- A. Develop discrepancy to create dissonance and support self-efficacy (SE) for small successes.
- B. Nonthreatening, open-ended exploration to get patient input and focus on incremental goals.
- C. Attempt to engage a strategy to elicit change talk from the patient.
- D. Exploration of the patient’s ambivalence for change.

12. Which one of the following is the best MI-based rationale for the pharmacist’s statement 3?

- A. Agreeing with the patient makes it more patient-centered.
- B. Reflective listening helps the pharmacist think about what to say next.

- C. Supporting the patient’s autonomy to choose is important.
- D. Early empathy helps the patient feel understood and respected.

13. Which one of the following is the best MI-based rationale for pharmacist statements 13 and 14?

- A. Focus on concern for incremental goals to support SE building.
- B. Express apprehension while asking permission to deliver information and tying the behavior to concerns.
- C. Use assertive communication to support patient autonomy and set reasonable goals.
- D. Engage the patient in change talk to elicit motivations for change.

14. Which one of the following MI communication principles best describes pharmacist statements 11, 14, and 16?

- A. Supporting SE.
- B. Rolling with resistance.
- C. Asking open-ended questions.
- D. Establishing patient understanding.

15. A patient states: “I heard this medicine will make me tired. Is that true? I am already tired, and I just don’t need that.” Which one of the following pharmacist responses is most consistent with MI principles?

- A. “Some patients feel tired at first. This doesn’t happen to all patients, and these symptoms usually go away in a few days.”
- B. “It shouldn’t be a significant problem for very long; I understand, and I would like to give you more information if that’s OK with you.”
- C. “Yes, it can have some side effects and this can be of concern; I wouldn’t worry about it; these will go away in time.”
- D. “It sounds like you’re worried about what this drug might do to you if you start taking it. May I share some information with you to address your concerns about the medicine?”

16. A patient states: “I heard this medicine could make me jittery. Is that true? I work with my hands and can’t afford to not have them be steady.” Which one of the following rationales would best guide the pharmacist to a statement consistent with MI principles?

- A. Explain to and reassure the patient.
- B. Reassure the patient and express empathy.
- C. Be honest and reassure the patient.
- D. Show early empathy and ask permission.

Questions 17 and 18 pertain to the following case.

M.M., a patient unwilling to quit smoking, has the following encounter with her pharmacist:

M.M.: “I don’t have any desire to quit smoking.”

Pharmacist: “But you need to think about how you can quit or cut back; your smoking is affecting your high blood pressure.”

17. **Which one of the following statements would best exemplify M.M.’s response to the righting reflex?**

- A. “Why do you care?”
- B. “Look, I’m not quitting, and I’m not even going to cut back, so leave me alone about it.”
- C. “What are my options?”
- D. “Just give me a pill or a patch or something.”

M.M. continues the encounter with her pharmacist:

Pharmacist: “Tell me what you know about how smoking affects your blood pressure.”

M.M.: “I know that it’s bad for me.”

Pharmacist: “May I share with you some additional information about that?”

18. **Which one of the following best characterizes the pharmacist’s MI goal?**

- A. Ask open-ended questions to be less threatening and to support patient autonomy and SE.
- B. Roll with the resistance to avoid engaging the patient in an argument; ask permission to support patient autonomy.
- C. Find out what the patient knows about risks to raise consciousness; then set up to ask permission to give the information.
- D. Support SE by allowing the patient to feel confident; develop internal motivation by having the patient tell what she knows.

Questions 19 and 20 pertain to the following case.

S.T. is a 34-year-old man who is HIV-positive and ambivalent about taking his drugs as prescribed. His pharmacist initiates a conversation on the topic of adherence. The pharmacist decides to use a readiness ruler, and asks: “On a scale of 1–10, with 1 being not at all and 10 being completely, how ready are you to start taking your medicine every day as prescribed?” S.T. responds that he is a 5.

19. **Which one of the following is best for the pharmacist’s first follow-up question?**

- A. “Why a 5 and not an 8?”
- B. “Why a 5 and not a 4?”

C. “Why a 5 and not a 10?”

D. “Why a 5 and not a 1?”

20. The pharmacist asks S.T.: “What would have to happen for your readiness to go from a 5 to a 6 or 7?” **Which one of the following best describes the strategy behind the pharmacist’s question?**

- A. Engages the patient in change talk and focuses on incremental change.
- B. Empathic responding makes the patient feel connected to the pharmacist.
- C. Explains the patient’s cons or reasons for not adhering to his drugs.
- D. Asking open-ended questions supports patient autonomy.