CHAPTER 5

Communication Skills to Elicit Physical Activity Behavior Change: How to Talk to the Client

Heather Patrick, Ken Resnicow, Pedro J. Teixeira, and Geoffrey C. Williams

One of the biggest challenges facing practitioners is that physical activity (PA) counseling must take into account both individual motivational variables (*e.g.,* whether an individual wants to exercise or not, perceived barriers to being physically active) and the sociocultural context in which we live. A natural tendency for some practitioners is to attempt to motivate a client by showing clients the error of their ways; using fear messages or exhortation or by prescribing a ready-made exercise plan. However, these approaches often fail to yield the desired results. Indeed, in much the same way that most people in the developed world know that smoking tobacco is dangerous for their health, they also already know that being more physically active is something they "should do" to be healthier. Yet most are not doing enough of it. Information is not the key driver.

As a practitioner, you are uniquely positioned to energize and motivate your clients to be more physically active. Providing appropriate motivational support for your clients involves understanding the reasons they may not enjoy PA. This could include fears, discomfort, or other sources of resistance and ambivalence as well as the meaning of PA for their health and broader life values. Patient-centered counseling approaches offer a variety of techniques by which practitioners can support clients' optimal motivation, resulting in long-lasting health behavior change. This includes aligning their natural tendencies toward growth and health with their other life goals and values. Working with clients in this manner allows them to develop a plan for regular physical activity that is best suited to their specific needs, values, strengths, barriers, and life stage. Because clients play an active role in addressing barriers, exploring the meaning of PA, and developing their PA plan, a pattern of regular physical activity will more likely be maintained.

In this chapter, we take the perspectives of Motivational Interviewing (MI) (32) and Self-Determination Theory (SDT) (36,38) to identify client-centered ways in which practitioners can encourage increased physical activity. We have chosen to take these perspectives in particular for two primary reasons. First, MI and SDT have demonstrated efficacy in working with those who may be ambivalent about change, as well as those more ready to change (32,38). Second, an emerging body of evidence supports the efficacy of these approaches not only for the initiation of behavior change but also its maintenance. Although MI and SDT emerged in different ways—MI as a counseling style and SDT as a psychological theory—they are conceptually complementary in many ways (20,51), and both have been used to develop interventions that motivate long-term change of health behaviors, including tobacco cessation, reduction of alcohol intake, increases in fruit and vegetable intake, healthy weight management, and regular physical activity (19,38). More sophisticated discussions of the higher-level distinctions between MI and SDT have been provided elsewhere (29,50,51). For ease of presentation, we will discuss MI and SDT as distinct yet complementary approaches useful in a variety of contexts and settings. Thus, it is not the case that one is necessarily "better" than another in any given situation. We begin with a brief overview of MI and SDT to clarify their underlying assumptions about human motivation. Specific strategies used within MI and SDT are then described, along with the training

necessary to successfully implement these techniques in clinical practice. Two specific client-centered counseling frameworks for physical activity (the 5 A's and MI's Explore, Guide, Choose) are presented, and an overview of the evidence for these approaches is provided. Examples and brief vignettes are included whenever possible to assist the reader in understanding how to put these techniques into practice.

A BRIEF OVERVIEW OF MOTIVATIONAL INTERVIEWING AND SELF-DETERMINATION THEORY

Motivational Interviewing

Motivational Interviewing (MI) is a set of general clinical techniques aimed at addressing clients' ambivalence toward change, overcoming resistance to change, and building autonomous motivation. Rather than using more directive or coercive approaches, MI works from the perspective of the client by aligning behavior change goals with the client's broader goals and values. Although it originally emerged out of addiction treatment, MI has since been used to modify a range of health behaviors relevant to chronic disease prevention and management, including healthy eating, physical activity, and weight management (19). MI is a "way of being" that uses strategies described later in this chapter such as reflective listening, shared decision making, and eliciting change talk.

Effective MI has been described as the strategic balance between "comforting the afflicted" and "afflicting the comfortable" (30). That is, MI techniques involve balancing the expression of empathy with the need to build sufficient discrepancy (*i.e.,* between the individual's current behavior and the behavioral goal and other personal values) to stimulate change. MI has been shown to be particularly effective with those who are ambivalent about change (3,15,24,28,31). This may be, in part, because of the nonjudgmental and encouraging tone that characterizes MI. Practitioners establish a nonconfrontational and supportive climate in which clients feel comfortable expressing both what they like and what they don't like about their current behavior. From the perspective of MI, it is often important to explore ambivalence prior to moving toward change (30).

Most practitioners learn to offer their professional advice based on their expertise and experience. They may do so in part to save time, and because they function from a paternalistic "I know what's best" approach for motivating their clients. However, an overly prescriptive approach often backfires, creating resistance from clients more than drive. Using an MI approach, clients do much of the psychological work themselves. Practitioners, therefore, serve as guides through the process, assisting clients in identifying their own pros and cons for their current behavior as well as the goal behavior, understanding what prevents them—both practically and perceptually—from reaching the goal behavior, and developing a plan of action once ambivalence has been explored and resolved. Within MI, practitioners typically do not directly attempt to dismantle denial or confront irrational or maladaptive beliefs. Instead, they may subtly help clients detect contradictions in their thoughts and actions, allowing them to experience discrepancy between their current actions and who they ideally want to be. MI practitioners rarely attempt to convince, cajole, or persuade. Instead, MI encourages clients to make fully informed and deeply contemplated choices, even if the decision is not to change. The counselor is careful to avoid pushing the client and creating further resistance.

Self-Determination Theory

MI emerged as a set of clinical techniques and thus is inherently practical in the clinical world. By comparison, Self-Determination Theory (SDT) evolved out of basic social science as a theoretical framework to understand the bases of human motivation (5,36). Much recent research in SDT has focused on applying its concepts clinically, including in the area of physical activity (13,39). There is a good deal of conceptual overlap between SDT and MI, though some differences remain. A sophisticated discussion of the complementarity and distinctions between MI and SDT is beyond the scope of this chapter. However, several recent publications have focused explicitly on this issue (20,26,29,47,50,51). Using the principles of SDT, Williams and others have developed and tested need-supportive therapy for health behavior change for physical activity, tobacco cessation, weight loss, and medication use (41,54,55). The SDT–based approach uses many MI–congruent techniques. Additionally, researchers and practitioners alike have begun to use SDT as the *de facto* theoretical perspective through which to understand how and why MI techniques work (30).

CONTINUUM OF MOTIVATION

SDT views motivation as having two central components: psychological energy, and the goal that the energy is directed toward. SDT has articulated a continuum of motivation which ranges from *amotivation* (*i.e.,* lacking psychological energy, or having no reason for engaging in a behavior, or seeking a particular health goal) to *extrinsic motivation* (engaging in behaviors for some separable outcome) to *intrinsic motivation* (engaging in behaviors for their own enjoyment or interest, and not for any other separable outcome). Figure 5.1 presents the motivation continuum, along with examples of each type of regulation, described in detail in the following text. Many health behaviors are extrinsically motivated; that is, they are engaged for some separable outcome (*e.g.,* to eliminate or reduce a symptom, to improve the quality or length of life, to minimize nagging from a well-intentioned spouse or clinician). Others, like physical activity or healthy cooking, can also be intrinsically motivating; that is, they can be interesting in their own right and strongly energized by the enjoyment they provide.

Within the motivation continuum there are several gradations varying in the degree to which extrinsic motivations are more or less internalized to the self (*i.e.,* how self-congruent these

| Motivation | Amotivation | Extrinsic motivation | | | | Intrinsic motivation |
		External regulation	Introjected regulation	Identified regulation	Integrated regulation	
Definition	Lacking motivation or psychological energy.	Gaining rewards, avoiding negative consequences, including social sanctions.	Internal pressure resulting in feelings of shame or guilt.	Believing in the personal importance or value of the behavior.	The behavior is consistent with one's other goals and values.	The behavior is enjoyable and important in its own right.
Example	The client can't think of any reason for engaging in physical activity.	The client exercises to get a T-shirt. The client exercises so her trainer won't scold her for failing to meet exercise goals.	The client feels guilty about not exercising when he is spending a lot of money on a personal trainer.	The client exercises because she believes exercising is important for her health.	The client exercises because it is consistent with his goals for losing weight and getting healthier.	The client regularly attends an exercise class because it is fun.

FIGURE 5.1. The motivation continuum.

motivations are, and how closely they resemble intrinsic motivation) (5,35). The least internalized form of extrinsic motivation, *external* regulation, is characterized by engaging in behaviors to gain some reward, such as a financial incentive, or to avoid some negative consequence, including social sanctions like disapproval or disappointment from others. *Introjected* regulation is similar to external regulation in that behaviors are also enacted out of a sense of pressure or coercion—in this case, pressures that one puts on oneself to behave so as to avoid feelings of shame and guilt if one failed to perform a behavior as prescribed or up to one's standards.

Many clients may come into physical activity sessions with these "controlled" forms of motivation. And although these forms of motivation may be energizing for a time, this is often short-lived and frequently associated with poor psychological well-being when compared with more autonomous or internalized types of motivation. Importantly, although it may seem somewhat intuitive to offer extrinsic rewards to help to get people started with a regular exercise routine, the preponderance of evidence from basic social science research broadly, and from SDT in particular, suggests that such tactics are likely to interfere with the process of internalization (6,36,37). For instance, studies in tobacco cessation (4) and weight control (26) indicate that changes induced by financial incentives are generally not maintained in the long term. Thus, any short-term gains that may be achieved by using rewards, social punishments, or attempting to capitalize on the client's own propensity for feelings of guilt and shame, are outweighed by the long-term motivational consequences. Supporting clients to develop more autonomous, internalized forms of motivation is key, as internalized motivations have been shown to result in greater behavioral persistence (40).

Identified regulation is a relatively more autonomous form of extrinsic motivation. It is characterized by a belief that the target behavior is personally important and meaningful, and thus the behavior it energizes is maintained over time. For example, someone may pursue a specific physical activity goal—like training for and completing a marathon—because the individual believes it is an important goal to achieve. Finally, the most autonomous (*i.e.,* internalized) form of extrinsic motivation is *integrated regulation*. With integrated regulation, the individual believes that the behavior is important and meaningful and is also consistent with one's other goals and values. Thus, operating under integrated regulation a person may train for and complete a marathon because the activity is personally important and is also consistent with the person's broader goals and values for being healthy and active.

Importantly, SDT views motivation as dynamic. That is, even though people may have more external reasons for engaging in a behavior, they may develop more autonomous or internalized reasons over time. Practitioners are uniquely positioned to facilitate (or impede) this process. Also, it is important to keep in mind that different types of motivation can and do coexist relative to any behavior, including physical activity. For instance, some introjected motivation can be present even when someone exercises largely for autonomous reasons. From an SDT perspective, the important aspect for adherence and well-being is what type of motivation is predominant.

BASIC PSYCHOLOGICAL NEEDS

The supporting or thwarting of basic psychological needs is the primary mechanism through which motivation and self-regulation can be changed (6). SDT proposes three basic psychological needs: competence, relatedness, and autonomy. These needs are consistent with MI principles and techniques (20).

Competence

Competence refers to the need to feel capable of achieving desired outcomes. It is related to the concept of self-efficacy (*i.e.,* confidence), used in other health behavior theories (1) (also see Chapter 1 and 3). Discussing psychological and practical barriers to physical activity as well as goal setting and action planning can serve to meet the client's need for competence.

Identifying the level of physical activity your client is ready for (*i.e.,* reaching optimal challenge, not too much or too little) will also support his or her need for competence.

Relatedness

Relatedness refers to the need to feel connected to and understood by important others. Practitioners can support this need by being empathic, listening to the client's concerns and asking questions to seek clarification about what the client is expressing. Relatedness needs may also be supported through being physically active. For some, this may mean exercising with others or examining how physical activity can improve their social relationships.

Autonomy

Autonomy is the need to feel volitional, as the originator of one's actions. By serving as a guide to the client's own self-exploration and goal setting, practitioners can support this need and thus promote the development of more optimal, enduring forms of motivation and self-regulation for their clients. Clients' needs for autonomy are also supported by practitioners following the principles of client centeredness; providing choices or a menu of options for how to go about behavior change and by not pushing their own agenda, particularly when the client voices ambivalence or reasons against behavior change. For example, when talking with a client about types of exercise likely to promote health and cardiovascular fitness, some clients may automatically think of the experience of being told by a coach or gym teacher to run laps (often as punishment). As a practitioner, you can offer a list of possible activities the client may wish to try out that would achieve the same health benefits but be more enjoyable (*e.g.,* exercise classes such as Body Pump or Zumba, dancing, playing pick-up basketball games with friends).

Practitioners can guard against pushing their own agenda by using techniques such as reflective listening, as described later in this text. It is important for practitioners not to get attached to a particular outcome or agenda. Doing so interferes with clients' capacity to make an informed choice about the direction in which they want to go with prescribed behavior change, and to have ownership over the plan the client and practitioner develop together.

MI and SDT Techniques and Strategies

We now provide a general overview of MI and SDT techniques and strategies that can be used when working with clients around physical activity behavior change. Although we will be discussing a variety of techniques, it is not necessary to use all of these techniques with every client or in every session. Indeed, the amount of time one has to interact with the client in a given session, how long you have known the client, and the client's attitudes (regarding confidence and importance) toward PA behavior change will all determine which techniques are most appropriate in a given session. Think of these strategies as a clinical menu from which you can choose based on your available time and the client's particular needs. Because MI first began as a set of clinical techniques, we will use MI terminology but will draw analogies to SDT's need-supportive therapy for behavior change as well. Both MI and SDT are client-centered in their approach. Here, we delineate some specific techniques consistent with the tenets of these perspectives on client-centered counseling.

REFLECTIVE LISTENING

Reflective listening is a hallmark of client-centered counseling. It can be conceptualized as hypothesis testing or checking in with the client. In practice, this might take the form of, "If I heard you correctly, I think you're saying..." or more direct statements such as, "So, you are having trouble with...". The goal of reflective listening is to communicate to the client that you have heard and are trying to understand where they are coming from, affirm or validate their feelings and experiences, and further assist them in the process of self-discovery. This is, in part, a way to create a nonjudgmental environment from which the client can explore the positives

and negatives of their current behavior and prescribed behavior change. From the perspective of SDT, which also uses reflective listening, this serves to support the client's needs for relatedness (*i.e.,* by conveying an interest in understanding where the client is coming from) and autonomy (*i.e.,* by withholding judgment about the client). Even if you "guess wrong" about what the client is trying to say, this can be beneficial as it helps the client to clarify his or her own thoughts, and the practitioner's openness to correction can further strengthen rapport.

Reflections range in complexity from the practitioner clarifying that he or she has understood the basic facts of the client's story to exploring meaning or feeling behind statements. At least seven types of reflections have been identified and defined and are described in the following text:

1. Content reflections
2. Feeling/meaning reflections
3. Amplified negative reflections
4. Double-sided reflections
5. Reflections on omission
6. Action reflections (including behavior suggestions, behavior exclusions, and cognitive suggestions)
7. Rolling with resistance

Content Reflections

Content reflections are perhaps the simplest form of reflection and involve reflecting the basic facts about the client's story. Although simple, content reflections are important for gathering background information and building rapport. This might take the form of a statement like, "You tried to exercise regularly before and were not able to stick with it."

Feeling/Meaning Reflections

Feeling/meaning reflections often take the form of direct statements about what the client seems to be feeling, why the person feels a certain way or how something is related to other important aspects of the person's life. Building on the content reflection cited earlier, a feeling/meaning reflection may go a step further: "Because you weren't able to stick with it before, you are afraid that you will fail again."

Amplified Negative Reflections

Amplified negative reflections involve exaggerating the negatives of behavior change and/or the positives of staying the same. Paradoxically, by arguing against change, the practitioner can exhaust the client's resistance. "So, for you it makes more sense not to exercise at all than to try to get into a regular routine and fail," or "You see no benefit in trying to exercise regularly." This technique may be particularly useful when clients get into a "Yes, but" resistance mindset.

Double-Sided Reflections

Double-sided reflections are particularly important because they convey to the client that the practitioner heard their reasons for and against behavior change. They also provide an opportunity for the practitioner to communicate to the client that they accept the client's ambivalence and are not going to push the client to change, thus supporting the client's need for autonomy. An example might be, "On the one hand, you see the benefits of being more physically active, but on the other hand you are concerned that exercising regularly would interfere with time you have with your family in the evenings."

Reflections on Omission

Through a *reflection on omission*, the practitioner can comment on what the client has *not* said. For example, if an otherwise happily married woman states that she has no one to exercise with, the counselor could reflect back, "So it sounds like your husband is not the

answer." This can further build rapport and expresses to the client that the practitioner is not going to try to motivate with strategies that the client has already thought about, tried, and rejected (thus supporting autonomous motivation).

Action Reflections

Action reflections include potential solutions to the client's barriers or some element of a course of action. When possible, action reflections provide a menu of effective options from which the client can choose so as to support the client's need for autonomy. Because of their focus on actionable items, action reflections may also serve to support the client's competence needs. As reflections, these statements involve characterizing ideas the client has generated or contemplated. Thus, they do not involve giving unsolicited advice. There are three subtypes of action reflections: behavior suggestion, behavior exclusion, and cognitive suggestion (8).

Behavior Suggestions

Behavior suggestions can take several forms including:

1. Inverting the barrier (*e.g.,* "Starting with shorter, 10-minute bouts and building up to 30 consecutive minutes of moderate activity may feel less overwhelming and like a more attainable goal for you right now")
2. Nonspecific or umbrella strategies (*e.g.,* "So, finding a way to exercise around your house or during the work day may help.")
3. Specific strategies based on previous discussions with the client (*e.g.,* "Perhaps mapping out a walking route around your neighborhood would make it more reasonable for you to exercise regularly.")

Behavior Exclusions

Behavior exclusions involve reflecting back to the client that, given what they have said, there may be some options that would not work for them. The reflection on omission technique described previously is one way in which behavior exclusions can be included in action plans.

Cognitive Suggestions

Finally, *cognitive suggestions* are another way to express action reflections. These focus more on how a client may be thinking about physical activity rather than their behavior per se and often resemble the cognitive component of cognitive-behavioral therapy. (For example, "So, it sounds like when you miss an exercise session, you feel like you have failed. And when you start thinking that you have failed, you tend to abandon the effort altogether— which is what really interferes with your goals. Maybe not thinking of exercising regularly as all-or-none—you're either meeting the goal or not—would help to make it more doable for you to be more physically active and reach your exercise goals.")

Rolling with Resistance

Rolling with resistance is a unique kind of reflection. Confronting clients about their resistance can backfire, leading to defensiveness, rapport damage, and poor outcomes with respect to behavior change (23). Thus, instead of arguing with the client, MI suggests that practitioners "roll with resistance." By rolling with resistance, practitioners align with clients, essentially agreeing with them even in circumstances where the client is making factually incorrect statements. An example of a reflection characteristic of rolling with resistance might be, "You have a very busy life and you work a lot. So, coming home and sitting on the couch to watch TV is how you unwind at the end of the day." This approach is the opposite of amplified negative reflections, described previously.

Rolling with resistance reflections acknowledge the client's reasons for not changing. They also contribute to creating a social environment in which the client feels free to express

resistance without feeling pressure to change or worrying about being judged. Rolling with resistance avoids thwarting clients' autonomy and relatedness needs by not forcing them to make changes in any particular way, and by providing an opportunity for them to explore the change at their pace so they can identify their own reasons for becoming physically active (autonomy). Rolling with resistance also avoids leaving clients feeling that you are judging them as weak-willed, or that you don't like them because they are not doing what you want them to do (*i.e.,* unconditional positive regard or relatedness). It further communicates you are not going to push them to change, but empathize with their struggles.

ELICITING CHANGE TALK

Eliciting change talk is another important component of client-centered counseling. Both MI and SDT start with the same basic assumption: that humans are naturally oriented toward growth, health, and well-being. Practically, this means practitioners do not need to tell people to be healthy; clients naturally want to do this, except in rare circumstance such as clinical depression or complete amotivation. Thus, the practitioner's role is to work with clients to identify and voice their personal sources of motivation, since clients are more likely to accept and act upon goals and plans that they articulate for themselves. The process by which counselors encourage clients to express their own reasons and plans for change is called *eliciting change talk*.

Measure Importance and Confidence

Importance and confidence "rulers" are one way to elicit change talk, and this approach has been used in both MI and SDT interventions. In the context of physical activity, this strategy uses two questions:

1. "On a scale from 0 to 10, with 10 being the highest, how important is it to you to be more physically active?"
2. "On a scale from 0 to 10, with 10 being the highest (and assuming you want to change this behavior), how confident are you that you could be more physically active?"

Practitioners then follow up each question with two probes. For example, if the client answered "7," the practitioner would first probe with, "You said on a scale of 0 to 10, you would rate the importance of being more physically active as a 7. Why didn't you choose a lower number, like a 4 or 5?" This would be followed by, "What might it take for you to get to a higher number, like an 8 or a 9?" These probes elicit change talk by providing an opportunity for the client to explore his or her reasons for behavior change as well as where there may be barriers and potential solutions. Assessing importance is one way to tap into the nature of the client's motivations as well as their broader values system.

SDT applications have sometimes modified this question slightly to ask clients how much they want to engage in behavior change (*e.g.,* being more physically active). Assessing confidence approximates the client's perceived competence and can also provide an opportunity to identify potential barriers.

Develop Discrepancy

Another technique for eliciting change talk and energizing motivation is to *develop discrepancy* between the client's current behavior and other life goals and values. Clients may choose from a list of values (*e.g.,* good spouse/partner, attractive, athletic, on top of things, energetic (30)) or they may generate three to five personal goals or values on their own. Self-generation of goals or values may be approached in the following way: "Now I'd like to get to know a little bit more about other aspects of your life and things that are important to you. If you were to think about the things that are most important to you, or perhaps some things you'd like to accomplish—either in the short term like the next 5 years or over the course of your life—what would those things be?"

The practitioner then explores with the client how becoming more physically active or starting a more regular exercise routine would support or interfere with the pursuit and

achievement of those goals. For example, the client may acknowledge "spending time with family" as something that is important to them. The client may note that being more physically active may mean spending less time with family, which is less appealing. The client may also note, however, that by being more physically active they are pursuing a healthier lifestyle that is likely to contribute to longer length and quality of life, which would provide more time with family in the long run. Thus, rather than the practitioner telling the client what he or she should do and why it is important, the client is able to explore this territory on his or her own and align behavior change with broader life goals and values. The client's self-exploration supports autonomy needs and also promotes internalization of motivation for physical activity by bringing physical activity goals in congruity with other goals and values.

TRAINING: USING MI AND SDT TECHNIQUES SUCCESSFULLY

There is a considerable literature on MI training techniques, and SDT has used MI training protocols in teaching SDT practitioners how to utilize SDT and MI techniques in health promotion contexts. Thus, here we describe training as outlined for MI practitioners, though training for SDT practitioners is quite similar.

Introductory Training

Many practitioners are initially exposed to MI techniques in brief, generally didactic-only sessions like "grand rounds." More formal introductory training may begin with studying print materials and training videos. It may also involve attending an introductory training session lasting up to 1 to 3 days that covers the basic tenets of MI and the foundation for using MI techniques in practice.

Introductory workshops typically involve a mix of didactic instruction, demonstrations, and hands-on experience. The purpose of these sessions is to provide training participants with a general understanding of the spirit and method of MI and to provide practical experience in trying out the approach. Practitioners who have learned the basics of MI and had the opportunity to use MI techniques in their practice over time may wish to achieve additional proficiency.

Intermediate/Advanced Training

Intermediate/advanced clinical training often involves having audio or video recordings of sessions of the practitioner coded by a trainer, who provides feedback about how to further hone MI skills. Intermediate/advanced training is typically done over the course of a 2- or 3-day workshop and focuses primarily on demonstrations, opportunities for practice and review of audio- or video-recorded sessions that training participants have brought in from their clinical practice. Some studies have recently emerged to evaluate the efficacy of online and other auto-didactic methods for MI training. These approaches show great promise and are critical for MI to be used on a broad scale. Additional information about MI Manuals and Training along with train-the-trainer materials can be found at http://www.motivationalinterview.org.

CLIENT-CENTERED APPROACHES FOR ELICITING PHYSICAL ACTIVITY BEHAVIOR CHANGE

The Traditional Approach: The 5 A's

Originally developed by the National Cancer Institute as an approach to addressing tobacco cessation in primary care, the 4 A's model (ask, advise, assist, arrange) has since been

expanded to include a fifth step: agree, or "assess willingness to change." The 5 A's model (ask, advise, agree, assist, arrange), as described by the U.S. Preventive Services Taskforce, has been used to conceptualize brief interventions across a variety of behaviors implemented by a variety of health practitioners (*e.g.,* wearing seatbelts, alcohol use, etc.) (12).

STEP-BY-STEP

Ask

Ask involves asking the client about health behaviors and risks and the factors that impact their decision to change as well as the goals and methods applied to such changes.

Advise

Advise involves giving the client clear, specific behavior change advice, including information about the health risks of not changing and benefits of implementing change. Within the 5 A's model, advice has been shown to be most effective when it is linked directly to the reason for which the person has sought care. For example, if a client came to a practitioner because they were concerned about their risk for cardiovascular disease, the practitioner may recommend the kinds of exercise that have been shown to lower cardiovascular risk (*e.g.,* moderate and vigorous physical activity).

Agree

Agree or *assess willingness to change* refers to the collaborative process by which the practitioner and client work together to determine whether the client wants to change and, if so, identify behavior change goals and strategies based on the client's interest and willingness to change the target behavior. By including the fifth "A" for "agree," this model directly supports autonomy because it is naturally aligned with engaging the client in the development of a plan and exploring and acknowledging client ambivalence.

Assist

Assist is the process by which the practitioner helps the patient to achieve the agreed–upon behavior change goals by obtaining the needed skills, confidence, and social or environmental supports. Assist directly supports clients' needs for competence.

Arrange

Arrange involves the practitioner working with the client to establish a schedule for follow-up contacts to provide ongoing support and adjust the treatment plan as needed. Multiple visits and unconditional support over time can be useful to motivating long-term change such as establishing a healthy pattern of physical activity. However, there is also the risk that the client perceives these visits (which ultimately will end) as an external source of reinforcement and motivation ("I have to show my personal trainer/doctor/etc. how well I'm doing"), which could undermine the development of more internal (and lasting) reasons to sustain new behaviors.

RELATIONSHIP AMONG MI, SDT, AND THE 5 A'S

It is important to note that although MI, SDT, and the 5 A's developed independently, because MI and SDT are primarily about the way in which the practitioner interacts with the client rather than nuts and bolts of specific clinical behaviors, it is possible to use a 5 A's, brief-encounter approach in a way that is MI- and SDT-congruent. For example, one may view MI and SDT as a more comprehensive approach to the first A: *Ask.* Additionally, one may use "Agree (willingness to change)," to elicit client autonomy and to explore and

acknowledge client ambivalence, and move forward with "assist" only when the client has expressed a desire to change.

The one arena in which the 5 A's, MI, and SDT may be less complementary is *Advise*. In the context of PA counseling, advice may come in the form of providing information about current recommendations for levels and types of physical activity required to achieve certain health goals (*e.g.,* health benefits, reduced cardiovascular risk, weight loss, etc.). It may also come in the form of providing an exercise prescription or plan. MI and SDT would suggest that, to support clients' optimal motivation, it is important to develop an exercise plan in a collaborative, client-centered way rather than a more paternalistic or prescribing way. As described earlier, MI recommends against direct advice-giving and maintains that attempts to directly persuade a client may backfire because such persuasive attempts inherently "take sides" in the ambivalence. In turn, SDT maintains that one of the keys to supporting patient autonomy—providing structure—is achieved, in part, by explicitly guiding the client or patient through the various choices they have to best maintain or improve health and well-being.

For example, to the degree the client feels unsure about the most effective dose or type of exercise to achieve a certain fitness/health outcome, an explicit recommendation might be offered. However, even in SDT, advice is not intended to control the client, but rather to provide information about effective options of treatment. Further, in medical and health contexts in particular, explicit recommendations may be an expected component of interactions between practitioners and clients. Thus, a practitioners' refusal to provide such direction could thwart all three of the patient's psychological needs and may be experienced by the client as abandonment. However, SDT cautions that recommendations be given noncoercively, so as to provide information to the patient while still supporting the patient in making the decision himself or herself (*e.g.,* "Research has shown that incorporating regular exercise into your life is important for achieving the weight loss goals you have identified, but the choice is ultimately yours, and I will be here to support you in whatever decision you make.").

Indeed, more recent formulations of MI have allowed for practitioners to make recommendations when patients specifically ask for advice as discussed later in the three-phase model (Explore, Guide, Choose), and through action reflections described previously. From the perspectives of both MI and SDT, providing direct recommendations may occur at any point in the 5 A's model, depending on the client's expressed needs and goals. For example, in the context of Ask, the client may indicate being uncertain about what types of exercise they need to be engaging in to achieve a weight loss goal. This may be a circumstance in which the practitioner can provide information about current recommendations or provide options for the client to consider about the types of exercise he or she would like to engage in. Likewise, in the context of Agree, during which client and practitioner are working together to establish an exercise plan, the client may ask for suggestions on how to proceed toward a particular exercise goal. Regardless of when opportunities for direct advice-giving may present themselves, from the perspective of MI and SDT, it is critical for the practitioner to check in with the client to ensure that the practitioner is being responsive to the client's needs and is aligned with the client's goals rather than the practitioner's own agenda.

Both MI and SDT have used the *elicit-provide-elicit* framework for providing direct advice (29). That is, practitioners *elicit* from the client information about their knowledge and attitudes toward behavior change, where there may be knowledge gaps, etc., and then *provide* information and recommendations based on what the client has indicated or requested. Practitioners then *elicit* again, asking clients how they interpret the information that was provided and what the information means to them in the context of their current behavior. Case Scenario 5.1 provides a vignette that illustrates how the 5 A's approach might be used in a way that is consistent with the motivational perspectives highlighted in this chapter. Although we will discuss these techniques in a linear fashion, it is important to note that not all clients proceed through these phases in the order specified.

Case Scenario 5.1

THE 5 A'S IN THE CONTEXT OF MI AND SDT

Your client is a 45-year-old married woman with two children; she is a computer programmer. She was a college athlete and was physically active during young adulthood but hasn't been active over the past 10 years. She has gained some weight (current BMI = 28), and she is struggling with negative body image. She is also worried about becoming obese. She has come to your fitness facility to get a plan for being more active and losing weight. In the following exchange, P is the Practitioner, and she is C, the Client.

Ask

P: Hi Mrs. Jones. How are you today?

C: I'm doing okay. I'm ready to start exercising again. I hate my body right now, and I'm worried about my weight. I used to be active, and I want to get back there.

P: So it sounds like you've been thinking about being more physically active. I'd like to learn a little more about what your daily life is like.

C: Well, my work keeps me in front of a computer all the time, and they always have food around the office that tastes so good—donuts, muffins, candy. I eat to take a break from my work. And I sit most of the day.

P: When do you like to exercise?

C: Well, in theory, I could exercise in the morning.

P: But it sounds like maybe that's not working for you?

C: Not really. Mornings are just so busy with the kids.

P: So, if mornings don't work for you, what might work–or what might you be willing to try?

C: I think I might be more of an evening exercise person. That's what I used to do when I was working out all the time. And since the gym is between work and home, evenings might work.

P: Okay. Let's see if I have this right. You are unhappy with your current weight and also concerned about becoming obese. You used to be active, but not recently–mostly because you've been busy. It also sounds like you tried to exercise in the mornings, but that didn't really fit in with your schedule that well. Do I have that right?

C: Exactly. And now that we're talking about this, I have to admit that, even though I know that being active is good for me, I really want to lose weight. I'm really unhappy with how I look right now, and I miss how good I used to feel when I was exercising regularly.

Comment: The summary at the end of this dialogue is important for enhancing motivation because it lets the client know you have heard her, and makes it more likely she will be able to hear your advice without feeling controlled. Acknowledging her weight and body image concerns is also key to understanding central motives around exercise, which may be addressed later.

Case Scenario 5.1 *continued*

Advise

P: Now that I have a better sense of where you're coming from, let's talk about some recommendations for physical activity. Is that okay?

C: Yes, I think I have a general idea, but I'd like to know what I need to do–especially to lose weight.

P: It might help to think about exercise less as what you need to do and more as finding a routine that works for you. You might have heard that you need to get 150 minutes of moderate-intensity physical activity a week–or 30 minutes of activity on most days. These are activities like: brisk walking, bike riding, or water aerobics. But it might take more activity to lose weight. How does that seem to you?

C: Wow! 150 minutes seems like a lot. And I have to do more to lose weight? I definitely have my work cut out for me.

Agree/Assess (willingness to change)

P: 150 minutes sounds like a lot–and the thought of doing more can feel daunting. You might try thinking about it as something to work toward, with a smaller goal to start–like 10-15 minutes a day. How does that sound?

C: It definitely feels less overwhelming. But I don't want to set goals that are so small that I never get to where I need to be to lose weight.

P: It can be hard to find the balance between "do-able goals" and goals that are not challenging enough. Let's talk about some specifics and see how you feel then.

Assist

P: You might start with activities you like to do and build up from there.

C: I really like lifting weights, and I used to run, but at my current weight, it's really uncomfortable. Maybe I could use a stationary bike?

P: It sounds like you have some ideas about the kinds of exercise you like. Great! How many times a week could you get to the gym or exercise from home?

C: I would like to say every day, but I don't think that's realistic. Maybe 2 days at the gym?

P: That's a great start. What days of the week would you like to come?

C: I wasn't expecting to have to name days. Maybe one time during the week and one time on the weekend?

P: That sounds reasonable. Can you work out at home at all?

C: My kids love to ride their bikes. Maybe I can go out with them 1 or 2 nights a week.

P: That sounds like a great start! Just to summarize, what I have heard you say is that you are willing to start with some smaller goals, but ultimately you want to lose weight. For now your plan is:
- Come to the gym 1 weekday and 1 weekend day to lift weights and ride the stationary bike.
- Go out with your kids to ride bikes 1 or 2 nights a week.

How does that seem to you?

C: I'll give it a shot.

Case Scenario 5.1 *continued*

Arrange

P: I'd like to follow up with you, just to see how things are going and to give you an opportunity to talk about how this plan is working for you (or where w might need to make some changes). Could we plan to meet again in 2 weeks?

C: Sure. And maybe I'll see you when I'm here between now and then?

P: Absolutely. And if you're having trouble with anything in the mean time and want to touch base, just send me an email and we can set up a time to talk–on the phone or here at the gym. Or if I'm not working with another client and we're both here, you can just come talk to me then.

C: Great. That sounds like a plan that will work for me.

P: Sounds good. Remember, there are lots of ways to become more active. Sometimes it just takes a few tries before we find the right mix and scheduling that works best for you. And we can talk more about your weight loss goals–and how to achieve them–when we meet next.

An Alternative Approach: Explore, Guide, Choose

Based on Motivational Interviewing (MI), a three-phase model (Explore, Guide and Choose) delineated by Resnicow and Rollnick (30) represents another framework for working with clients toward behavior change. Like the 5 A's, this approach can be used in brief encounters.

STEP-BY-STEP

As with the 5As model described above, although we will discuss these processes in a linear fashion, it is important to note that not all clients or clinical encounters proceed through these phases in the order specified. Indeed, some clients will come into the interaction without much ambivalence, and thus, less time will need to be devoted to "exploring." Additionally, quality (*i.e.,* sources) and quantity of motivation are likely to fluctuate throughout the process of behavior change. As clients experience failures, reemergence of ambivalence and other motivational slumps, "exploring" and "guiding" may need to be covered again within the context of these new experiences.

Explore

Similar to the 5 A's *Ask*, the primary objective during the explore phase is to obtain a behavioral history, including prior attempts at behavior change. MI and SDT take this a bit further and view this phase as an opportunity for the practitioner to "comfort the afflicted," build rapport, and better understand the client's story. Key skills and techniques used in the explore phase include reflective listening, shared decision making (particularly with respect to agenda-setting), and open-ended questions. Because rapport building is an important component of this phase, the practitioner conveys empathy and demonstrates for the client that the practitioner will support autonomy and not push a change agenda. The explore phase includes very little action planning, although when action ideas come up in conversation, the practitioner may wish to provide a verbal acknowledgement of plans to revisit them later in the session.

Guide

Once the practitioner has heard and understood the client's story, and some rapport has been established, the discussion can proceed to guiding. This phase is characterized by "afflicting the comfortable" as it involves moving the conversation toward building motivation and therefore the possibility of change. The primary technique used in this phase is eliciting change talk, including building discrepancy between the client's current behavior (*e.g.,* not exercising) and the client's broader goals and values (*e.g.,* being healthy, spending time with family) and using the 0-to-10 importance/confidence rulers. The guiding phase concludes with the practitioner summarizing the discussion, highlighting the client's potential reasons for making a change, and checking in with the client about where that leaves the client with respect to pursuing change. If the client expresses a commitment to making a change, even a small one, the session can then move to a more practical discussion of how to implement the said change.

Choose

This is the action phase of the discussion and covers much of the territory covered by the last 4 of the 5 A's. Key objectives include helping clients identify a goal, building an action plan, anticipating barriers, and agreeing on a plan for checking in on progress. Skills and techniques used in the choose phase involve action reflections and include developing a menu of options for change and setting goals (including mini-goals or short-term objectives). It is important to keep in mind that, just like other reflections, action reflections are the practitioner's "best guess" for what the client has said or where the story is going. Thus, the client may refute suggestions or get into a "yes-but" mindset. This may result from underlying resistance or ambivalence that has not been resolved or from previous experiences the client has had with attempted behavior change and failure.

Even when clients refute suggestions, this provides important information about what does and does not work and what the client does or does not want to pursue. One technique that may help to minimize outright rejection and support autonomy is to provide multiple options within a reflection. For example, "Trying to get in a walk during your lunch hour or inviting the kids to come out with you on your neighborhood walk might be ways that you can be physically active without losing out on important family time." Because the provision of choice supports needs for autonomy, resistance is reduced. Case Scenario 5.2 provides a vignette illustrating the Explore, Guide, Choose approach.

Case Scenario 5.2

EXPLORE, GUIDE, CHOOSE

Your client is a 58-year-old married man who is a long-haul truck driver. He recently had a heart attack, and becoming more physically active is part of his cardiac rehabilitation. Although he was active in sports throughout high school, he has not been physically active much at all as an adult. His recent heart attack seems to have gotten his attention, though. In the following exchange, P is the Practitioner, and he is C, the Client.

Warren Goldswain/Shutterstock.com

Case Scenario 5.2 *continued*

Explore

P: I understand that your doctor has recommended that you become more physically active. How are you feeling about being more active in your daily life?

C: Well, my heart attack sure got my attention. And I've known for a while that I should be more active than I am. I sit a lot with my job. I used to really like sports when I was a kid, but that seems like forever ago.

P: So it sounds like you were jolted by your heart attack. You're concerned about how much time you spend sitting at work. You're also a little unsure about what it will be like to be more active at this point in your life—that maybe you won't be the star athlete you once were.

C: Yeah, I huff and puff just walking up stairs so I can't imagine doing... what did my doctor call it? Moderate to vigorous activity? For 30 minutes a day?!

P: Exercise may not seem like much fun, and getting to 30 minutes must seem daunting.

C: Yeah, but I know I need to do it. I don't want to have another heart attack or, worse, have to have bypass surgery.

Guide

P: So on a scale from 0 to 10, with 10 being the highest, how important is it to you to be more physically active?

C: Oh, it's real important. I'd say probably a 6 or 7.

P: So you would rate the importance of being more physically active as a 7. Why didn't you choose a lower number, like a 4 or 5?

C: Well, like I said, I definitely don't want to have another heart attack. And I know it's good for my health to exercise more.

P: And what might it take for you to get to a higher number, like an 8 or a 9?

C: Oh, I don't know. I mean, I think it's important to be active. I just don't know how realistic it is for me to fit it into my daily life. I'm out on the road a lot. So it's not like I can go to the gym whenever I want. And my job's not going to change, so I'm still going to be sitting all that time.

P: On the one hand, you see the benefits of being more physically active, but on the other hand you feel like the sedentary nature of your job might cancel out those benefits.

C: Yeah, and I just don't know how I'm going to do it. But I want to be healthy and active with my kids and to see them grow up.

P: This feels like a big change to undertake, but there are important parts of your life—like being healthy and being able to see your kids grow up—that would benefit from you taking better care of yourself by being more physically active.

Case Scenario 5.2 *continued*

Choose

P: From what you've said so far, there are two barriers that you see to being physically active on a regular basis: (1) you are concerned about fitting physical activity into your busy work life, and (2) because your job will still require you to sit just as much you feel like maybe this undermines the benefits you might get from exercising regularly.

C: Well, I think it's important for me to know whether my effort is worth it. If I'm sitting like 10 hours a day, does it really matter if I get in that moderate to vigorous activity for only 30 minutes?

P: So you are wondering if exercise still pays even if you are sitting a lot the rest of the day. I would like to share with you what we know about that. It does, actually. We know from research that being active at a moderate level of intensity—so your heart rate is elevated a bit but you're not completely winded—for 30 minutes a day goes a long way toward improving your health. Of course, if you could be active for more than that, that's good too. What do you make of that?

C: OK. But I still don't know how I'm going to do it. I can't get to the gym.

P: You are looking for a way, other than going to the gym, to be active in a way that fits with your job.

C: I guess I could take little walk breaks when I stop to fill up the truck.

P: So what might that look like?

C: I don't know. Probably only 10 minutes or so. Not the full 30. Does that even count?

P: Absolutely. How might you make these walk breaks happen?

C: I could bring my sneakers and comfortable clothes with me...

P: So you can commit to getting in at least three 10-minute walk breaks each day when you're stopped to fill up your truck. Let's touch base again in about a month to see how that plan is working for you. You might find that this works out just fine, or that maybe we need to make some adjustments. Either way, let's plan to talk about what's working for you and what's not so that you can get closer to achieving your physical activity and health goals.

THE EVIDENCE FOR CLIENT-CENTERED APPROACHES

There is a solid evidence base for both MI and SDT in health behavior change settings. Early studies of MI and SDT focused on substance abuse and tobacco cessation, as well as engagement in sports and physical education (18,42,49). Here we limit our overview to the evidence for MI and SDT in leisure-time physical activity. In addition, there is considerable support for the 5 A's model, particularly for use as a brief treatment (3–10 minutes, for two to four visits) for tobacco and alcohol abuse and dependence, though a more detailed description of this evidence base is beyond the scope of this chapter (10,53).

Motivational Interviewing and Physical Activity

Several systematic reviews and meta-analyses of MI applied to behaviors relevant to chronic disease prevention and management have been published in recent years. In a review of brief MI interventions by Dunn and colleagues, MI was found to be more effective for

facilitating exercise (and diet) change than change in other health behaviors (8). In a meta-analysis of 30 randomized controlled clinical trials examining the effectiveness of adaptations of MI (*e.g.,* MI interventions that also include non-MI components such as norm-based feedback), Burke, Arkowitz, and Dunn (2) reported that adaptations of MI were as effective as other active treatments and more effective than no treatment and placebo controls for improvements in exercise adoption and maintenance (follow-ups ranged from 4 weeks to 1 year), as well as several other health behaviors. In their meta-analysis of 72 randomized, controlled trials involving diet, exercise, diabetes, and substance abuse, Rubak, Sandbaek, Lauritzen, and Christensen (34) found that, overall, MI outperformed traditional advice-giving in 75% of the studies reviewed. Resnicow, Davis, and Rollnick (27) reviewed youth studies that used MI to modify diet or physical activity, diabetes, and other behaviors such as smoking and found some evidence for the feasibility and utility of MI with children and adolescents. Their review also included some adult studies that used MI to promote change in diet or physical activity (27). Van Dorsten (48) reported that MI substantially improved diet and exercise behaviors, treatment adherence, and weight loss in 10 studies targeting weight loss and/or exercise.

In another review, 24 published empirical studies were identified that used MI as an intervention for diet and/or exercise behaviors (21). Across these studies, MI was shown to be effective for diet and exercise behavior change both alone and in combination with other interventions. With regard to exercise, clients receiving an MI intervention reported greater exercise self-efficacy and increased physical activity behavior. MI has also been shown to facilitate healthier eating (*i.e.,* reduced caloric intake, increased fruit and vegetable consumption) and improve weight loss outcomes (*e.g.,* decreased BMI) (21). Finally, Lundahl and colleagues (19) published a meta-analysis on 119 studies with outcomes including substance use, gambling, engagement in treatment, and—more germane to the present discussion—health-related behaviors such as diet and exercise. Across studies, MI produced statistically significant, though small (average g = 0.28) effects compared to weak comparison groups. When judged against specific treatments, MI yielded statistically nonsignificant results. Further analyses suggested that feedback (*e.g.,* via motivational enhancement therapy), delivery time, manualization, and delivery mode (group vs. individual) moderated outcomes. It is worth noting that previous reviews and meta-analyses, as described earlier, found that MI was more effective for physical activity and exercise than for substance use treatments. The Lundahl and colleagues (19) meta-analysis did not present results differentiated by behavioral outcome. Taken together, these reviews and the studies that comprise them provide strong evidence for the clinical utility of MI for physical activity behavior change and that additional research is needed to better elucidate the clinical utility of MI for pediatric physical activity promotion and obesity prevention.

Self-Determination Theory and Physical Activity

As a general theory of human motivation SDT has addressed both the characteristics of motivation toward prescribed behavior (*i.e.,* the extent to which motivations are more or less internal to the self) and the importance of psychological need support (*i.e.,* for one's inherent needs for autonomy, competence, and relatedness) from the social context in facilitating the emergence of more internal forms of motivation. Several studies applying SDT to physical activity demonstrated associations between internalized or autonomous forms of motivation (*i.e.,* intrinsic, integrated, identified) and greater exercise behavioral engagement, adherence to exercise recommendations over time, perceived competence, and psychological well-being. These were primarily observational studies (7,17). Additional evidence has demonstrated that the socioenvironmental context provided by the support of psychological needs for autonomy, competence, and relatedness facilitates internalization of motivation which is, in turn, related to exercise behavior (9,14).

Recently, investigators have begun testing SDT-based interventions for physical activity. For example, studies that experimentally prime more autonomous motivations, through the use of need-supportive techniques (described earlier), evidenced increased exercise intentions and behaviors (9,14). Interventions implemented in applied settings such as primary care and personal training have also been developed and are being tested (9,11,25). Given the role of physical activity behavior in various health outcomes, SDT-based interventions targeting cardiovascular health, diabetes, and overweight/obesity have also used SDT techniques to promote physical activity. Very recently, a systematic review of 66 empirical studies of SDT and exercise/PA (observational and experimental) found that autonomous forms of motivation, both extrinsic and intrinsic, consistently predicted increased PA participation, in some cases in the long term (46). In this review, higher levels of internal goals for exercising (*e.g.,* affiliation and social engagement, challenge, and skill development) were also clearly associated with exercise participation. Reviewers concluded that reporting high perceived competence for exercise positively predicts more adaptive exercise behavioral outcomes.

For example, in a study of patients in a community-based primary care practice, sedentary patients who worked with a SDT-trained physical activity counselor, compared to those who worked with a physical activity counselor using usual care practices, experienced greater need support in the health care climate. This predicted greater increases in autonomous self-regulation for physical activity and, in turn, increases in perceived competence for physical activity. Both autonomous self-regulation and perceived competence for physical activity predicted greater increases in physical activity behavior (*i.e.,* number of days in the past 6 weeks in which the participant engaged in light, moderate, or intense leisure-time activity for 20 minutes or more) (11).

In a one-year, SDT-based intensive behavioral intervention for weight loss among overweight and obese women, moderate and vigorous PA was significantly higher for women in the intervention compared to the control at the end of the intervention and at 1 and 2 years post-intervention (40,41). The intervention explicitly targeted increasing intrinsic motivation—namely enjoyment of physical activity—and autonomous regulation more generally. The effect of the intervention on autonomous regulation was notable because it was large, it was sustained over 2 years, and it mediated the effect of the intervention on physical activity 1 year after the intervention was over (40). Further evidence from this study has suggested a "motivational spill-over" whereby autonomous self-regulation for exercise predicted autonomous self-regulation for healthy eating over 1 year (22). Thus, facilitating autonomous self-regulation in one health domain may increase autonomous self-regulation in other, related domains. In sum, the studies summarized here represent a strong evidence base for using the tenets of SDT to promote physical activity behavior change.

Tailoring and Cultural Considerations

Although many patients report great satisfaction and improved outcomes from patient-centered approaches (33,44,52) such as MI or SDT, some individuals indicate that they prefer a more directive, educational style (45). In one recent study (43), where rural African American women viewed an MI training video showing both MI- and non–MI-consistent practices, many expressed concern that the MI consultation was too patient-centered. One participant commented, "He [provider] was asking the patient more about his decision, instead of him [provider] telling him." Another patient stated, "He [health care provider] [was] not giving the patient much information. He's supposed to know; he's a doctor." Many patients implied that a more practitioner-centered, directive approach, where the health care provider did most of the talking and offered unsolicited advice, was desired. As described earlier, SDT supports providing that advice when the client asks for it. Practitioners, therefore, need to tailor their intervention style to clients' preferences and cultural background.

Several issues are worth keeping in mind when working with diverse populations that may have different expectations about encounters with health professionals. MI and SDT, as client-centered approaches, are oriented toward tailoring the clinical approach based on the client's expressed preferences, concerns, and goals. Thus, it is possible to be clinically consistent with the tenants and techniques of MI and SDT while providing varying degrees of structure, advice, and so forth. Further, from the perspective of SDT, autonomy is not synonymous with independence. Rather, functioning in an autonomous way involves perceiving that one is the originator of one's actions, which may involve varying degrees of input from others.

This has been a critical issue of study in the area of cross-cultural research on basic psychological needs. Evidence has consistently demonstrated the universality of the need to be autonomous (5). However, the circumstances under which people experience autonomy may differ. For example, in more collectivist cultures, it is not uncommon for people to consult with family, friends, or other community leaders prior to making important decisions—including decisions about health and health behavior. They may seek input from others and experience this input in more or less autonomous ways. That is, they may volitionally choose to seek input from valued others or they may feel pressured or coerced to do so. Thus, it is not the seeking of input or direct advice-giving per se that is more or less autonomy supportive. Rather, it is the way in which the seeking of advice is approached and the way in which advice is delivered that is key.

TAKE-HOME MESSAGE

Working with clients who are ambivalent or amotivated about health behavior change can be challenging. Indeed, there is much in modern society that makes physical inactivity the default, and getting people to move from that default (psychologically and behaviorally) poses unique opportunities for practitioners. This chapter has provided some options for working with clients to promote physical activity, even in these difficult circumstances. First, consistent with MI and SDT, practitioners may wish to begin with the assumption that humans are naturally oriented toward growth, health, and well-being, while simultaneously acknowledging that many clients may be ambivalent about behavior change. By starting with these assumptions, practitioners are better equipped to show empathy for the challenges clients face and to attempt to understand where clients are coming from. Starting from the position that clients are able to enact change and providing empathy with their struggles enables practitioners to work with—rather than against—clients in their ambivalence and resistance to change by supporting their psychological needs. Thus, practitioners can help "plant the seeds" of lasting motivation and guide clients toward healthy levels of physical activity.

From the perspective of both SDT and MI, health professionals working in the exercise/PA arena would do well to not be excessively focused on producing immediate behavior change in their clients or patients, even if they themselves feel some internal or external pressure to produce results. Instead practitioners are encouraged to:

1. Explicitly focus on long-term behavioral outcomes (months, years) and share with clients the importance and value of lasting change (and what it may take to reach it);

2. Do their utmost to create the best counseling and experiential environment for clients' internal motivation to arise (when and if it does) instead of feeling that it is the role of the counselor to "motivate" the client;

3. Be confident in the client's natural desire to be healthy and vital, trusting that it is he or she, when and if adequately motivated, who will ultimately find the best solution to overcome what stands between him/her and a more physically active lifestyle.

R E F E R E N C E S

1. Bandura A. *Self efficacy: The exercise of control*. New York: Freeman; 1997.

2. Burke BL, Arkowitz H, Dunn C. The efficacy of motivational interviewing and its adaptations. In: Miller WR, Rollnick S, editors. *Motivational Interviewing: Preparing People for Change*. New York: Guilford Press; 2002. p. 217-50.

3. Butler C, Rollnick S, Cohen D, Bachman M, Russell I, Stott N. Motivational consulting versus brief advice for smokers in general practice: A randomized trial. *British J Gen Pract*. 1999;49:611–6.

4. Cahill K, Perera R. Competitions and incentives for smoking cessation. *Cochrane Database of Systematic Reviews*, 4. Art. No.: CD004307; 2011.

5. Chirkov VI, Ryan RM, Kim Y, Kaplan U. Differentiating autonomy from individualism and independence: A self-determination theory perspective on internalization of cultural orientations and well-being. *J Pers Soc Psychol*. 2003;84:97–110.

6. Deci EL, Ryan RM. The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychol Inq*. 2000;11:227–68.

7. Duncan LR, Hall CR, Wilson PM, O J. Exercise motivation: A cross-sectional analysis examining its relationships with frequency, intensity, and duration of exercise. *Int J Behav Nutr Phys Act*. 2010;7:1–9.

8. Dunn C, DeRoo L, Rivara FP. The use of brief interventions adapted from MI across behavioral domains: A systematic review. *Add*. 2001;96:1725-43.

9. Edmunds JK, Ntoumanis N, Duda JL. Perceived autonomy support and psychological need satisfaction in exercise. In: Hagger MA, Chatzisarantis NLD, editors. *Intrinsic Motivation and Self-Determination in Exercise and Sport*. Champaign (IL): Human Kinetics; 2007. p. 35–51.

10. Fiore MC, Jaen CR, Baker TB et al. Treating tobacco use and dependence: 2008 update. http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf; 2008.

11. Fortier MS, Sweet SN, O'Sullivan TL, Williams GC. A self-determination process model of physical activity adoption in the context of a randomized controlled trial. *Psychol Sport Exer*. 2007;8:741–57.

12. *Guide to Clinical Preventive Services, 2012*. AHRQ Publication No. 12-05154, October 2012. Agency for Healthcare Research and Quality, Rockville (MD).

13. Hagger MS, Chatzisarantis NL. *Intrinsic Motivation and Self-Determination in Exercise and Sport*. Champaigne (IL): Human Kinetics; 2007.

14. Hagger MS, Chatzisarantis NLD, Barkoukis V, Wang CKJ, Baranowski T. Perceived autonomy support in physical education and leisure-time physical activity: A cross-cultural evaluation of the trans-contextual model. *J Educ Psychol*. 2005;97:376–90.

15. Heather N, Rollnick S, Bell A, Richmond R. Effects of brief counselling among male heavy drinkers identified on general hospital wards. *Drug Alc Rev*. 1996;15(1):29–38.

16. John LK, Lowenstein G, Troxel AB, Norton L, Fassbender JE, Volpe KG. Financial incentives for extended weight loss: A randomized-controlled trial. *J Gen Inter Med*.; 2011.

17. Kwan BM, Caldwell Hooper AE, Mangan RE, Bryan AD. A longitudinal diary study of the effects of causality orientations on exercise-related affect. *Self Ident*. 2011;10:363–74.

18. Lonsdale C, Sabiston CM, Raedeke TD, Ha ASC, Sum RKW. Self-determined motivation and students' physical activity during structured physical education lessons and free choice periods. *Prev Med*. 2009;48:69–73.

19. Lundahl BW, Kunz C, Brownell C, Tollefson D, Burke BL. A meta-analysis of motivational interviewing: Twenty-five years of empirical studies. *Res Soc Work Prac*. 2010;20:137–60.

20. Markland D, Ryan RM, Tobin VJ, Rollnick S. Motivational interviewing and self-determination theory. *J Soc Clin Psychol*. 2005;24:811–31.

21. Martins RK, McNeil DW. Review of motivational interviewing in promoting health behaviors. *Clin Psychol Rev*. 2009;29:283–93.

22. Mata J, Silva MN, Vieira PN, et al. Motivational "spill–over" during weight control: Increased self-determination and exercise intrinsic motivation predict eating self-regulation. *Health Psychol*. 2009;28:709–16.

23. Miller W. Motivational interviewing with problem drinkers. *Behav Psychotherapy*. 1983;11(2):147–72.

24. Miller W, Rollnick S. *Motivational interviewing: Preparing people to change addictive behavior*. New York: Guilford Press; 1991.

25. Patrick H, Canevello A. Methodological overview of a self-determination theory-based computerized intervention to promote leisure-time physical activity. *Psychol Sport Exer*. 2011;12:13–9.

26. Patrick H, Williams GC. Self-determination theory: Its application to health behavior and complementarity with motivational interviewing. *Int J Behav Nutr Phys Act*. 2012;9:18.

27. Resnicow K, Davis R, Rollnick S. Motivational interviewing for pediatric obesity: Conceptual issues and evidence review. *J Amer Diet Assoc*. 2006;206:2024–33.

28. Resnicow K, Jackson A, Wang T, De AK, McCarty F, Dudley WN, et al. A motivational interviewing intervention to increase fruit and vegetable intake through black churches: Results of the Eat for Life trial. *Am J Pub Health*. 2001;91(10):1686–93.

29. Resnicow K, McMaster F. Motivational interviewing: Moving from why to how with autonomy support. *Int J Behav Nutr Phys Act*. 2012; 9:1–15.

30. Resnicow K, Rollnick S. Motivational interviewing in health promotion and behavioral medicine. In: Cox WM, Klinger E, editors. *Handbook of Motivational Counseling: Goal-Based Approaches to Assessment and Intervention with Addiction and Other Problems*. 2nd ed. New York: John Wiley & Sons; 2011.

31. Rollnick S, Miller W. What is motivational interviewing? *Behav Cog Psychotherapy*. 1995;23(4):325–34.

32. Rollnick S, Miller W, Butler C. *Motivational Interviewing in Health Care: Helping Patients Change Behavior*. Rev. ed. New York: Guilford; 2008.

33. Roter DL, Hall JA. Physician gender and patient-centered communication: A critical review of empirical research. *Annual Rev Public Health*. 2004;25:497–519.

34. Rubak S, Sandbaek A, Lauritzen T, Christensen B. Motivational interviewing: A systematic review and meta-analysis. *British J Gen Prac*. 2005;55:305-12.

35. Ryan RM, Connell JP. Perceived locus of causality and internalization: Examining reasons for acting in two domains. *J Pers Soc Psychol*. 1989;57:749–61.

36. Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am Psychol*. 2000;55:68–78.

37. Ryan RM, Deci EL. When rewards compete with nature: The undermining of intrinsic motivation and self-regulation. In: Sansone C, Harackiewicz JM, editors. *Intrinsic and Extrinsic Motivation: The Search for Optimal Motivation and Performance*. New York: Academic Press; 2000. p. 13–54.

38. Ryan RM, Patrick H, Deci EL, Williams GC. Facilitating health behaviour change and its maintenance: Interventions based on self-determination theory. *Eur Health Psychol*. 2008;10:2–5.

39. Ryan RM, Williams GC, Patrick H, Deci EL. Self-determination theory and physical activity: The dynamics of motivation in development and wellness. *Hellenic J Psychol*. 2009;6:107–24.

40. Silva MN, Markland DA, Carraca EV, Vieira PN, Coutinho SR, Minderico CS et al. Exercise autonomous motivation predicts 3-yr weight loss in women. *Med Sci Sports Exer*. 2011;43:728–37.

41. Silva MN, Vieira PN, Coutinho SR, et al. Using self-determination theory to promote physical activity and weight control: A randomized controlled trial in women. *J Behav Med*. 2010;33:110–22.

42. Smith A, Ntoumanis N, Duda JL. An investigation of coach behaviors, goal motives, and implementation intentions as predictors of well-being in sport. *J App Sport Psychol*. 2010;22:17–33.

43. Stephania TM, Khensani NM, Bettina MB. Perceptions of physical activity and motivational interviewing among rural African-American women with type 2 diabetes. *Women's Health Iss*. 2009;1–7.

44. Stewart MA. Effective physician–patient communication and health outcomes: A review. *CMAJ Can Med Assoc J*. 1995;152(9):1423–33.

45. Swenson SL, Buell S, Zettler P, White M, Ruston DC, Lo B. Patient-centered communication: Do patients really prefer it? *J Gen Intern Med*. 2004;19(11):1069–79.

46. Teixeira PJ, Carraça EV, Markland D, Silva MN, Ryan RM. Exercise, physical activity, and self-determination theory: A systematic review. *Int J Behav Nutr Phys Act*. 2012; 9:78.

47. Teixeira PJ, Palmeira A, Vansteenkiste M. The role of self-determination theory and motivational interviewing in behavioral nutrition, physical activity, and health: An introduction to the IJBNPA special issue. *Int J Behav Nutr Phys Act*. 2012;9:17.

48. Van Dorsten B. The use of motivational interviewing in weight loss. *Curr Diabetes Rep*. 2007;7:386-90.

49. Vansteenkiste M, Mouratidis A, Lens W. Detaching reasons from aims: Fair play and well-being in soccer as a function of pursuing performance-approach goals for autonomous or controlling reasons. *J Sport Exer Psychol*. 2010;32:217–42.

50. Vansteenkiste M, Resnicow K, Williams GC. Self-determination theory and motivational interviewing as examples of development from a meta-theory (top-down) vs. from clinical experience up (bottom-up): Implications for theory development, research and clinical practice and interventions. *Int J Behav Nutr Phys Act*. 2012;9:23.

51. Vansteenkiste M, Sheldon KM. There's nothing more practical than a good theory: Integrating motivational interviewing and self-determination theory. *British J Clin Psychol*. 2006;45:63–82.

52. Wanzer MB, Booth-Butterfield M, Gruber K. Perceptions of health care providers' communication: Relationships between patient-centered communication and satisfaction. *Health Comm*. 2004;16(3):363–83.

53. Whitlock EP, Orleans CT, Pender N, Allan J. Evaluating primary care behavioral counseling interventions: An evidence-based approach. *Am J Prev Med*. 2002;22(4):267–84.

54. Williams GC, Minicucci DS, Kouides RW, et al. Self-determination, smoking, diet and health. *Health Educ Res*. 2002;17:512–21.

55. Williams GC, Niemiec CP, Patrick H, Ryan RM, Deci EL. The importance of supporting autonomy and perceived competence in facilitating long-term tobacco abstinence. *Ann Behav Med*. 2009;37:315–24.