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Motivational Interviewing and Efficacy in Reduction of Alcohol Use

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Motivational Interviewing and Efficacy in Reduction of Alcohol Use

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Motivational Interviewing

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by

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Abstract

Health behavior change is a topic that has been heavily researched by professionals in both the mental health and medical fields. Particularly, change related to alcohol behaviors has been extensively researched, likely due to the pervasiveness of alcohol-related deaths in the United States. Nearly 88,000 people die from alcohol-related causes annually, making it the fourth leading preventable cause of death in the United States (CDC, 2014). While there is a lack of a clear definition in the literature, health behavior change can be defined as the shift from risky behaviors to the initiation and maintenance of healthy behaviors and functional activities, and the self-management of chronic health conditions (Epsten, Miner, Nieuwenhujisen,& Zemper, 2006).. There are a large number of factors that affect the outcome of health behavior change, including, but not limited to, patients' readiness and motivation to change, their environment, their physical and mental capabilities/limitations, and the specific technique taken to attempt to change behaviors.

Given the difficulty that comes along with changing instilled behaviors, it is important to consider the different theoretical models of change and the steps people go

through in the change process. One such technique used by professionals to facilitate health behavior change is called motivational interviewing. MI is a person-centered counseling style for addressing the common problem of ambivalence about change. MI works by activating patients' own motivation for change and adherence to treatment and has yielded many positive trials in the areas of management and prevention of diseases ranging from cardiovascular disease, diabetes, hypertension, and pathological gambling (Butler, Miller, & Rollnick, 2008). Since 2002, more than 25,000 articles citing MI and 200 randomized clinical trials of MI have appeared in print (Miller & Rollnick, 2013). The clinical method of MI, first described in 1983, was initially developed as a brief intervention for problem drinking, in which patient motivation is a common obstacle to change (Butler, Miller, & Rollnick, 2008). Because of MI's original purpose to help patients reduce alcohol consumption, the end of this paper will focus on a meta-analysis of the efficacy of MI for that particular health behavior. This paper will first discuss three different theoretical models of change to provide an understanding of the constructs and variables involved in the change process. Following this an analysis of the definition of motivational interviewing, the broad principles, core interviewing skills, and key concepts will be presented. Then, the aforementioned meta-analysis regarding the efficacy of MI in reduction of alcohol consumption, limitations, conclusions, and directions for future research will be discussed.

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Theoretical Models of Change

There are many different theoretical models of change in the literature. Regarding health behavior change, the three most salient models that discuss not just the processes of change, but also the key components needed for change, are Prochaska's Transtheoretical Model, Social Cognitive Theory, and the Health Belief Model. Prochaska's Transtheoretical Model highlights the stages of change people go through and the processes that emerge from those stages. Social Cognitive Theory has valid implications in many fields and has been empirically shown to be the leading theory behind.

Transtheoretical Model

When speaking of change in a broad sense, Prochaska's Transtheoretical Model (TTM) is the most widely accepted change model to date. The TTM emerged from a comparative analysis of leading theories in psychotherapy and behavior change in an attempt to streamline a systematic integration of a field that had fragmented into more than 300 theories of psychotherapy (Prochaska, 1979). The TTM has been tested empirically across many populations, and many different types of preventative behaviors, including smoking, weight control, exercise, safe sex, sunscreen use, drinking alcohol, and AIDS. The literature reveals a wide range of TTM contributions to rehabilitation, including understanding of client readiness for change to manage chronic conditions, for return to work, and to promote health and well-being (Epsten, Miner, Nieuwenhujisen,& Zemper, 2006). The TTM is grounded on the theory that we go through stages of change before we are ready to engage in a health-related action and concentrates on five stages of

change; 10 processes of change; the pros and cons of changing; self-efficacy; and temptation as core constructs (Ockene, Riekert, & Shumaker, 2009).

Stages of Change. The stages of change construct is of particular importance because it represents a temporal dimension. Change implies phenomena occurring over time, yet surprisingly none of the leading theories of therapy had contained a core construct representing time. The TTM construes change as a *process* that unfolds over time and involves progress through a series of six stages (Ockene, Riekert, & Shumaker, 2009). *Precontemplation* is the stage in which people are not intending to take action in the foreseeable future, typically measured as the next six months, likely because they are uninformed or underinformed about the consequences of their behavior. *Contemplation* is the stage in which people are intending to change in the next six months, are more aware of the pros and cons of changing, but often find themselves ambivalent about such change, thus causing people to often be stuck in this stage for long periods of time. Traditional action-oriented programs are not meant for people in the precontemplation or contemplation stages. *Preparation* is the stage in which people are intending to take action in the immediate future, usually measured as the next month. They have typically taken some significant action in the past year. *Action* is the stage in which people have made specific modifications in their lifestyle within the past six months. However, not all modifications of behavior count as action in this model. People must attain a criterion that scientists and professionals agree is sufficient to reduce risks for disease. For example, in smoking a person must completely avoid cigarettes, not just switch to a low-tar and low-nicotine cigarette instead (Ockene, Riekert, & Shumaker, 2009). *Maintenance* is the stage in which people are working to prevent relapse, are less tempted

to relapse when compared to the action stage, are more confident they can continue their changes, and tends to last anywhere from six months to about five years. During the maintenance stage, people may relapse into old behaviors and find themselves in former stages of the change process.

Processes of Change. There are ten processes of change that have received the most empirical support in research to date, discussed as followed. *Consciousness raising* involves increased awareness about the causes, consequences, and cures for a particular problem behavior. *Dramatic relief* initially produces increased emotional experiences, followed by reduced affect if appropriate action can be taken. *Self-reevaluation* combines both cognitive and affective assessments of one's self-image with and without a particular unhealthy habit. *Environmental reevaluation* combines both affective and cognitive assessments of how the presence or absence or personal habit affects one's social environment. *Self-liberation* is both the belief that one can change and the commitment and recommitment to act on that belief. *Social liberation* requires an increase in social opportunities or alternatives, especially for people who are relatively deprived or oppressed. *Counterconditioning* requires the learning of healthier behaviors that can substitute for problem behaviors. *Stimulus control* removes cues for unhealthy habits and adds prompts for healthier alternatives. *Contingency management* provides consequences for taking steps in a particular direction. Although this can include punishments, self-changers rely on rewards much more than on punishments. *Helping relationships* combine caring, trust, openness, and acceptance, as well as support for the healthy behavior change (Ockene, Riekert, & Shumaker, 2009).

Social Cognitive Theory

Albert Bandura pioneered the Social Cognitive Theory (SCT), also known as the social learning theory in the 1970's. The constructs of SCT can be applied to many fields, such as career development, rehabilitation education, psychiatric rehabilitation, rehabilitation nursing, and therapeutic recreation. SCT is also the most frequently used paradigm in weight management and physical activity interventions (Barata, et. al 2007) Bandura asserted that health behavior is influenced by a complex, interactive, reciprocal relationship among the person, the social environment, and behaviors. (Epsten, Miner, Nieuwenhujisen,& Zemper, 2006). When applied to health promotion and disease prevention, the social cognitive model specifies a core set of determinants, the mechanism through which they work, and the optimal ways of translating this knowledge into effective health practices (Bandura, 2004). The core determinants include *knowledge* of health risks and benefits of different health practices, *perceived self-efficacy* that one can exercise control over one's health habits, *outcome expectations* about the expected costs and benefits of different health habits, the health *goals* people set for themselves and the concrete plans and strategies for realizing them, and the *perceived facilitators* and social and structural impediments to the changes they seek (Bandura, 2004).

Knowledge is a key determinant because if people do not understand how their lifestyle choices affect their health, they have little reason to want to change their habits. Self-efficacy is also a focal determinant because it affects health behavior both directly and by its influence on the other determinants. Self-efficacy beliefs influence goals and aspirations, shape the outcomes people expect their efforts to produce, and determine how obstacles are viewed and coped with (Bandura, 2004). Self-efficacy has proven

instrumental in research on smoking cessation, adopting healthy diets, and engaging in regular physical activity (Epsten, Miner, Nieuwenhujisen,& Zemper, 2006). Health behavior is also affected by the outcomes people expect their actions to produce, including physical outcomes, social approval or disapproval the behavior produces, and positive and negative self-evaluative reactions to one's health behavior and health status (Bandura, 2004). Personal change would be easy if there were no impediments to surmount. The perceived facilitators and obstacles are another determinant of health habits.

Bandura suggests a threefold, stepwise implementation model based on the SCT. In this approach, the level and type of interactive guidance is tailored to people's self-management capabilities and motivational preparedness to achieve desired changes (Bandura, 2004). The first level includes people with a high sense of efficacy and positive outcome expectations for behavior change. They can succeed with minimal guidance to accomplish the changes they seek. Individuals at the second level have self-doubts about their efficacy and the likely benefits of their efforts. They need additional support and guidance by interactive means to see them through tough times. Individuals at the third level believe that their health habits are beyond their personal control. They need a great deal of personal guidance in a structured mastery program. (Bandura, 2004). In this stepwise model, the form and level of enabling interactivity is tailored to the participants' changeability readiness.

Health Belief Model

The Health Belief Model (HBM) is one of the earliest theoretical models investigating health behavior change. The HBM was developed in the early 1950s by a

group of social psychologists with the U.S. Public Health Service, focusing on enhancing people's compliance with preventative services (Rosenstock,1974). The basic components of the HBM are derived from a well-established body of psychological and behavioral theory whose various models hypothesize that behavior depends mainly upon two variables: 1) the value placed by an individual on a particular goals and 2) the individuals estimate of the likelihood that a given action will achieve that goal (Maiman & Becker, 1974). When these variables were conceptualized in the context of health-related behavior, the correspondences were 1) the desire to avoid illness and 2) the belief that a specific health action will prevent (or ameliorate) illness (Ockene, Riekert, & Shumaker, 2009). Other authors expand to state that the HBM is founded on the concept that health behaviors can be explained by four constructs: 1) perceived susceptibility or vulnerability; 2) perceived severity of a condition 3) perceived benefits of treatment and 4) perceived barriers (Epsten, Miner, Nieuwenhujisen,& Zemper, 2006). The HBM also calls attention to cues for action, activities or situations that simulate or encourage a person to behave healthfully, or to engage in functional activities safely. Recently the variable of self-efficacy has been added to the HBM to reflect a shift from early detection and treatment to primary prevention. The HBM also asserts that diverse demographic, personal, structural, and social factors are capable of influencing health behaviors (Ockene, Riekert, & Shumaker, 2009). However, these variables are believed to work through their effects on the individual's health motivations and subjective perceptions, rather than functioning as direct causes of health action (Becker et. al, 1977).

In the 1990's a systematic review of studies found the HBM inconsistent in predictive power for a number of behaviors (Harrison, Mullen & Green, 1992). However,

more recent research provides a large body of evidence in support of the HBM's ability to account for individuals' undertaking preventive health actions, seeking diagnoses, and following prescribed medical advice (Ockene, Riekert, & Shumaker, 2009). Of all the HBM dimensions, "perceived barriers" proved the strongest predictor across all studies and behaviors. While the frequency of application has declined in recent years, the HBM continues to be widely used in published studies and program descriptions. For example, constructs from the HBM have predicted disease management for heart disease (George & Shalansky, 2007).

Comparison of Theoretical Change Models

Comparative research in theories of behavior change is crucial for the advancement of the existing knowledge base and can lead to new challenges, interventions, and better ways to facilitate the health behavior change process (Epsten, Miner, Nieuwenhujisen,& Zemper, 2006). Several important observations can be made when comparing the different theoretical models of change. First, each theory has a different focus within the health behavior change process: the person's belief system (HBM), the person's interrelated experiences (SCT), and the person's readiness for change (TTM). Some scholars have expressed caution in terms of measurement of constructs, questionable predictability of certain aspects of the theory, or lack of convincing evidence. With these caveats in mind, these theories combined do enhance a deepened understanding of a complex process.

A second observation is that each of the three theories discussed above all take into consideration the influence of environment in the change process. Environmental reevaluation (TTM), perceived facilitators (SCT), and perceived barriers (HBM) all speak

to the influential role that environment plays in the health behavior change process. A third observation is that all three theoretical models involve a level of self-awareness and knowledge, which is integral in the change process. The TTM references *consciousness raising*; increased awareness about the causes, consequences, and cures for a particular problem behavior. SCT references *knowledge* of health risks and benefits of different health practices. Finally, the HBM references perceived susceptibility and perceived severity of a condition in the health behavior change process.

Of the three models, Prochaska's Transtheoretial Model delves the deepest into the multi-faceted layers involved in the change process. The TTM not only details the processes of the change process, but also describes at length the stages people move through during these processes. However, it should be noted that some scholars have expressed caution in terms of measurement of constructs, questionable predictability of certain aspects of these theories, or lack of convincing evidence. With these caveats in mind, these theories combined do enhance a deepened understanding of a complex process, so having a holistic approach in viewing the change process is likely the most empirically-informed way to approach the health behavior change.

Motivational Interviewing

The Origins of Motivational Interviewing

Clinical motivational interviewing (MI) first came about in the early 1980's and was initially developed as a brief intervention for problem drinking, in which patient motivation is a common obstacle to change. In the early 1990's, MI began to be tested with other health problems in which behavior change is key and patient motivation is a common challenge (Butler, Miller, & Rollnick, 2008). William R. Miller, PhD, introduced motivational interviewing in a 1983 article in the journal *Behavioral Psychotherapy* and in the first edition of *Motivational Interviewing,* written with Stephen Rollnick, in 1991. Research has provided important new knowledge on MI processes and outcomes, the psycholinguistics of change, and how practitioners learn MI. A common misconception is that MI is based on a specific theory, often, the transtheoretical model of change (TTM; Prochaska & DiClemente, 1984). The TTM was developed parallel with MI and helped open the door to appreciating the need for interventions for those who are not fully ready to change (Naar & Suarez, 2014). The TTM provides a way of thinking about how people might approach change, whereas MI provides us with an evidence-based communication approach that fits well with many theories of change (Naar-King & Suarez, 2011). Social cognitive theories and the self-determination theory have also been described as underlying MI-based interventions. Clearly, MI may be consistent with many theories, but in truth MI is an example of grounded theory. That is, the method emerged from the data (session recordings), and only now is a theory beginning to be explicated (Naar & Suarez, 2014).

What is Motivational Interviewing?

Miller & Rollnick (2013) provide a definition of MI meant to provide its purpose: Motivational interviewing is a collaborative conversation style for strengthening a person's own motivation and commitment to change by focusing on the language of change. MI focuses on client perspectives rather than framing issues from a professional viewpoint. Practitioners avoid directing clients toward specific solutions in ways that may elicit resistance. Instead, they evoke clients' own interests in change and steer the conversation toward client's change goals (Ingersoll & Wagner, 2013).

Broad Principles of Motivational Interviewing

Miller & Rollnick (2013) introduce four key interrelated elements as "The Spirit of MI": *partnership, acceptance, compassion, and evocation*. For each of these there is an experiential, as well as behavioral component. Partnership is addressed through the idea that MI is done "for" and "with" a person, not "to" or "on" someone. People are the undisputed experts on themselves. The client has vital expertise that is complementary to the therapists'. Activation of that expertise is a key condition for change to occur (Hibbard, Mahoney, Stock, & Tusler, 2007). Secondly, the aspect of acceptance relates much to the construct of unconditional positive regard established by Carl Rogers. Unconditional positive regard means the therapist whole-heartedly accepts clients no matter how they present themselves, what they say or do, or how they identify. Four important aspects within the pillar of acceptance are absolute worth, accurate empathy, autonomy, and affirmation. The next construct is compassion, not to be confused with sympathy. A person doesn't need to literally "suffer with" in order to act with compassion. To be compassionate is to actively promote the other's welfare, to give

priority to the other's needs (Miller & Rollnick, 2013). Lastly, the aspect of evocation is addressed through the implicit message, "You have what you need, and together we will find it," be it knowledge, insight, diagnosis, wisdom, reality, rationality, or coping skills. The spirit of MI starts from a very different strengths-focused premise, that people already have within them much of what is needed, and your task is to evoke it, call it forth.

Core Interviewing Skills

There are four communication skills that are paramount throughout the process of MI: asking open questions, affirming, reflecting, and summarizing, often referred to by the acronym OARS.

Asking Open Questions. An open question is one that invites a person to think a bit before responding and provides plenty room for how they wish to answer. It is important not to ask leading questions such as "Wouldn't it be best for you to _____" or multiple-choice questions like, "So what are you hoping to do: quit or cut down?" because this asserts the expert role (Miller & Rollnick 2013). It is often helpful to ask one question, then provide two reflections. The more questions you ask the more you limit the client's exploration. Whereas the more reflections you offer, the more you invite the client to consider and explore. As a style that is both client-centered and directional, MI involves a blend of open questions and reflections.

Affirming. In MI, affirming refers to accentuating the positive. To affirm is to recognize and acknowledge that which is good including the individual's inherent worth as a fellow human being. People are more likely to spend time with, trust, listen to, and be open with people who recognize and affirm their strengths. Affirmation may thus

facilitate retention in treatment (Linehan et al., 2002). However, it should be noted that affirmations must be authentic and true to the individual; shallow compliments do not achieve anything. Affirmations are also not the same as praise. To praise at least subtly implies that the praiser is in a one-up position as the arbiter or praise and blame. Affirming can also reduce defensiveness and directly facilitate change. Not all the affirming needs to come from therapist. Clients can be asked to describe their own strengths, past successes, and good efforts, and such self-affirming has been shown to facilitate openness (Critcher et. al, 2010).

It is important to frame affirmations from a perspective of "you" versus "I," for example "You really tried hard this week!" would be better than "I am proud of you." It is also possible to affirm by reframing the client's actions or situation in a positive light." A classic example is a "glass half full" comment on progress when a client may be discouraged about imperfection. Another way of affirming is to comment on what you perceive to be the person's positive traits or skills, which are framed (or reframed) as general personal attributes. For example, "You got really discouraged this week and you still came back. You're persistent!"

Reflective Listening. An important aspect of listening is providing the client with undivided attention. This is conveyed by eye contact, avoiding multi-tasking, and being aware of non-verbal cues such as facial expressions that affect how the client perceives the listeners reactions. Beyond silence and nonverbal expression, reflective listening involves taking a guess about what a person means. Meaning is encoded into words, often imperfectly. People don't always say what they mean. The listener has to hear the words accurately and then decode the meaning. Reflections should have the inflection of a

statement rather than a question and convey understanding of what the client says. Reflective listening focuses on the person's own narrative rather than asserting your own understanding of it. Thomas Gordon (1970) asserted 12 kinds of responses or "road blocks" that people commonly give each other, but that are not listening:

1. Ordering, directing, or commanding
2. Warning, cautioning, or threatening
3. Giving advice, making suggestions, or providing solutions
4. Persuading with logic, arguing, or lecturing
5. Telling people what they should do; moralizing
6. Disagreeing, judging, criticizing, or blaming
7. Agreeing, approving, or praising
8. Shaming, ridiculing, or labeling
9. Interpreting or analyzing
10. Reassuring, sympathizing, or consoling
11. Questioning or probing
12. Withdrawing, distracting, humoring, or changing the subject

Thus, reflective listening involves responding to the speaker with a statement that is not a roadblock, but rather is one's guess about what the person means (Miller & Rollnick, 2013).

Summarizing. Summaries are essentially reflections that pull together several things that a person has told you. They can also be affirming because they imply, "I remember what you tell me and want to understand how it fits together." Summaries also help clients to hold and reflect on the various experiences they have expressed (Miller & Rollnick, 2013). To reflect and summarize is to shine a light on the client's experience, inviting further exploration. Consciously or not, the therapist chooses to highlight certain aspects of what people say and to pass over other aspects (Trulax, 1966). Prompting with

"what else," at the end of a summary is a great way to invite the person to add to what the therapist has said. A linking summary provides the client with a link to something else they have mentioned in prior conversation, for example, "You felt really hurt and angry when he raised his voice at you. I remember another time you said your dad did that and you got really upset."

Key Concepts in the Method of Motivational Interviewing

Ambivalence. Ambivalence is a normal step on the road to change. Merriam-Webster defines ambivalence as "simultaneous, contradictory attitudes or feelings towards an object, person or action." The experience of conflicting emotions is often an uncomfortable state of being and can be a sticky place that people often remain static in. Miller and Rollnick (2014) coin four different "flavors" of ambivalence. The first involves where the person is torn between two positive choices; approach/approach. There is attractiveness on both sides, so typically this is the least stressful type of ambivalence. The other type is labeled avoidance/avoidance and involves being stuck between two unpleasant alternatives, often referred to by the old adage "stuck between a rock and a hard place." The third type is approach/avoidance. In this type of conflict only one possible choice is being considered that has significant positive and important negative aspects. The final type is labeled double approach/avoidance, which is often the most confusing type of ambivalence because each choice has significant positive and significant negative aspects. Motivational Interviewing helps people to keep moving forward through the natural process of resolving ambivalence. Having conversations around ambivalence within the context of MI leads to the next topic of change talk.

Change Talk. Change talk is an important aspect of MI and involves any self-expressed language that is an argument for change. The aspect of change talk being self-expressed is of particular importance because if change talk first executed by someone else, the person is likely to respond by expressing a counter-change argument from the other side of their ambivalence. Psycholinguist Paul Amrhein specializes in the language of motivation and commitment. He found in his observations that when the requester's language contained a level of demand that was higher than the other's level of willingness, that negotiations did not go well (Miller & Rollnick, 2014). This is why it is so crucial for therapists and/or clinicians to meet the client at their current level of motivation. And at the same time, the task is to elicit "change talk" from your patients rather than resistance.

Preparatory change talk consists of four subtypes: desire, ability, reasons, and need. Desire is expressed through the person's "want" for something to change, often expressed through words such as "wish, hope, would like." Ability involves the person's self-perceived ability to achieve what they want to change. Reasons for change do not inherently address a person's desire or ability. A person may acknowledge the reasons they want to change, but feel they are incapable of doing it. This is where doing decisional balance activities can be of great importance. The final component of preparatory change talk is need, which is reflected through language that emphasizes the general importance or urgency of change.

Whereas preparatory change talk reflects the pro-change side of ambivalence, mobilizing change talk signals movement towards resolution of ambivalence in favor of change (Miller & Rollnick, 2014). Just because a person is able to talk through the

ability, reasons, and desires for change does not mean the one will follow through with changing. A clear example of mobilizing change talk is commitment language. Committing language signals the likelihood of action and is what people use to make promises to each other (i.e. I swear, I guarantee, I give you my word). In a similar vein, there are words that indicate movement towards action, but not full commitment. Language such as "I'm willing to, I'm prepared to, I'm ready to," is referred to as activation language. Such language does not constitute binding language, but signals a person is leaning towards that direction of action. Taking steps is another kind of mobilizing language that shows the person has taken a specific action toward the change goal such as, "I bought some new running shoes or I called three places about possible jobs."

The important take away is not necessarily for the therapist or provider to be able to label and classify the change talk they hear, but rather being able to recognize it. By recognizing such language, the therapist or provider can appropriately meet the client where they are and have meaningful conversations based on their current level of motivation.

Sustain Talk and Rolling with Resistance. Just as preparatory and mobilizing talk have aspects of desire, ability, reasons, need, commitment, activation, and taking steps; so does sustain talk. Sustain talk and change talk are conceptually opposite- the person's arguments against and for change (Miller & Rollnick, 2014). Consequently, the more a person engages in sustain talk, the less likely they are to change and the more they engage in change talk, the more likely they are to take action in efforts towards change (Moyers, Martin, Houck, Christopher, & Tonigan, 2009). This isn't to say that sustain

talk doesn't have a place in the therapy room. Sustain talk is important to highlight ambivalence and be realistic about a person's motivations. MI practitioners do not give equal weight to all elements, this what clients are already doing and has allowed them to remain stuck (Rosengren, 2009). Instead, they pay close attention to things clients tell them about possible change and give emphasis to those points. However, this is where the aspect of rolling with resistance comes to play. The therapist does not want to get in a power struggle with the client or argue with them, rather the therapist should "roll with the resistance," by using therapeutic techniques to validate what the client has said while eliciting and eliciting an opposing response. This can be done by simple reflections, amplified reflections, and double-sided reflections (Rosengren, 2008). Examples of such techniques will be further discussed after the closing case vignette.

Skillful Questioning. Asking helpful, guiding questions rather than questions that "police bad behavior," is critical in MI. Certain lines of questioning can sound accusatory, discourage honesty, and leave to meandering conversations. However, other lines of questioning can provide clients with a helpful perspective on their dilemma and elicit change talk rather than defensiveness. Consider this example of a practitioner asking a client, "I need to ask you now, have you been keeping to the diet sheet you were given?" versus asking, "You're working on changing your diet. What would be most helpful for us to talk about today?" The first example has a policing tone to it and is finished with a closed question. However, the second response is an open question that gives the client room for what they want to discuss. Butler, Miller, & Rollnick (2008) suggest using the acronym RULE to guide MI conversations. R is to avoid the Righting reflex by not jumping in too soon with practical suggestions and to Understand the

client's motivations so as to elicit solutions from them. Listening is always important followed by Empowering the client by conveying a belief that change is possible and that together you can locate workable solutions.

Scaling Questions. Scaling questions are used often in health care settings, for example to assess the amount of a pain a patient is feeling. Within MI, scaling questions or "rulers" have dual purposes: to reveal a client's motivation and to elicit change talk. A 1-10 ruler can be used to ask about various motivational dimensions including readiness, desire, or commitment. These can be done in verbal form or by drawing a line on a piece of paper and placing a 0 and 10 at either end. The first step is to ask a question such as, "How strongly do you feel about wanting to get more exercise? On a scale from 1 to 10, where 1 is "not at all," and 10 is "very much," where would you place yourself now?" From there, the therapist/practitioner asks the client why they have given a particular number and not a lower number. This question naturally conjures up change talk. The questions can also be asked in the opposite fashion, why the client didn't choose a higher number, but this should be done with caution as it can often lead to defense of the status quo (Butler, Miller, & Rollnick, 2008).

Information-Giving. Particularly in the realm of healthcare, practitioner's expertise are often needed as problem-solving components or in plans of action. The technical expertise that the practitioner brings to the encounter may be quite helpful to the client, but there is also an implication of an uneven relationship as a result (Rosengren, 2008). However, it is possibly to still give advice and concern in a collaborative way. Some basic concepts to when providing new or discrepant information to a client include:

1. Offer information, don't impose it

2. Find out if clients want the information before you give it
3. Ask permission, especially if clients haven't asked for the information
4. Provide information in the context of other clients
5. Give clients implicit or explicit permission to disagree with you
6. Use a menu of options
7. Use client statements
8. Give information that is factually or normatively based, rather than just opinion
9. Invite clients to decide what the information means for them
10. Remember, your client is a person, not an information receptacle.

Research Review

The literature provides ambiguous results of the efficacy of motivational interviewing across diverse health behaviors. However, research findings are easier to decipher when looking at individual health behaviors in isolation. There is an extensive amount of research that has been conducted regarding the efficacy of motivational interviewing for reducing alcohol consumption.

Meta-Analysis Findings

A meta-analysis performed on behalf of the Medical Council on Alcohol compiled results from 22 relevant studies dated from 1983 to 2003 and were identified using the terms 'motivational interviewing,' 'brief intervention,' and 'motivational enhancement therapy,' to search the following sources: MEDLINE, PsychInfo, Science Direct, and Ingenta. The references in two earlier meta-analytic reviews (Dunn et al., 2001; Noonan & Moyers, 1997) were also used, because they were used in the bibliography of the motivational interviewing website.

This analysis used inclusion criteria including: studies claimed to adopt the principles and techniques of MI as described by Miller and Rollnick (1991), they delivered a face-to-face intervention rather than one by computer or telephone, they randomly assigned participants to groups, they included a comparison group, were independent, stand-alone studies, and had to have been either published or in press, because peer-reviewed studies are of higher quality (Cox, W., Hosier, S., & Vasilaki, E., 2006). Seven of the twenty-two studies examined the efficacy of MI among college students (Agostinelli et al., 1995; Baer et.al. 1992, 2001; Borsari & Carey, 2000; Marlatt et al., 1998; Murphey et.al., 2001; Roberts et al., 2000), six of them tested MI's efficacy

in outpatient community settings (Handmaker et al., 1999; Kelly et al., 2000; Miller et al., 1988, 1993; Sellman et al., 2001; Shakeshaft et al., 2002), whereas five delivered MI in emergency-room or clinical settings with patients reporting alcohol-related problems, such as a physical injury (Gentilello et. al., 1999; Heather et al., 1996; Longabaugh et al., 2001; Monti et al., 1999; Smith, 2003).

Nine studies examined whether brief MI was as efficacious as other treatments. Five studies compared brief MI with treatment as usual/brief advice/standard care, one with directive-confrontational counseling, one with educational intervention, one with skill-based counseling (SBC), and one with cognitive behavioral treatment. The results show that MI was more efficacious than a range of other treatments for alcohol problems. The average duration of MI in these nine studies was 53 minutes, thus, 53 minutes of brief MI is more efficacious than a diverse set of other treatments.

Nine studies compared brief MI with a no-treatment (NT) control group. Again, MI was proven to be more efficacious than no treatment for reducing alcohol consumption. Results show that the aggregate effect size for the five studies that compared MI with NT was significant at the <3 month follow-up, but not significant at the <6 month follow-up.

This literature review has pointed to several factors that may influence the long term-efficacy of MI for reducing drinking behaviors, including age, gender, and duration. Of the 15 studies, 13 reported the ages of participants, with a mean age of 31.77 years (SD=10.26). It has been suggested that age influences the efficacy of MI (Cox, W., Hosier, S., & Vasilaki, E., 2006). However, only one study has addressed this issue. Shakeshaft et. al. (2002) found that clients who consumed high levels of alcohol and who

were older at baseline were significantly more likely to reduce the number of binge episodes during the post-treatment period. It would be expected that older participants are more active in treatment and more likely not to withdraw than younger ones. However, due to lack of studies examining this issue, a final conclusion cannot be drawn at this time.

Of the 15 studies, 12 reported the gender of the participants; a total of 1265 males and 565 females. As this disproportion suggests, alcohol problems are more prevalent among men than women. However, only one study (of the 15) examined how gender interacts with treatment outcomes (Marlatt et al., 1998). Men reported higher quantity and frequency of drinking than women, but there was no interaction between gender and treatment outcome. Thus, brief MI was equally effective for both genders. However, it is possible that men and women could have received different treatment types based on the severity of their symptoms (confrontational vs. non-confrontational). Therefore, future studies need to test specific hypotheses related to this issue (Cox, W., Hosier, S., & Vasilaki, E., 2006).

When brief MI was compared with extended treatments (CBT, SBC, or directive-confrontational counseling), its average duration was shorter, (53 minutes versus 90 minutes), making MI more cost-effective than more extensive treatments. In one study in which both MI and CBT were effective in reducing alcohol use, MI lasted 60 minutes, but CBT lasted four and one-half hours. It could be argued that an increase in the duration of MI might lead to more positive outcomes in the long-term, but future research needs would be needed to confirm this hypothesis (Cox, W., Hosier, S., & Vasilaki, E., 2006).

Limitations of the Review

One criticism of meta-analyses is that they treat all studies the same regardless of variations in methodology (Cox, W., Hosier, S., & Vasilaki, E., 2006). For example, the studies included in this meta-analysis used different instruments to assess alcohol consumption and included samples of excessive drinkers drawn from different populations. However, one strength is that all the studies reported adequate information about their assignment of participants to the intervention or control group. Another important limitation of the analysis is related to the generalization of the results. The findings can only to heavy- or low-dependent drinkers. Despite these limitations however, this meta-analysis provides evidence that MI is an effective strategy for reducing alcohol use.

Future Directions

Although this meta-analysis finds that MI is effective in reducing alcohol use, many researchers in the field of drug and alcohol recovery emphasize the importance that reduction is not the same as sobriety. It is estimated that 40-60% of a person's predisposition to addiction is genetic (New Hope Recovery, 2013). Evidence shows that with continued use, alcohol and drugs can physiologically and neurologically alter the brain. This is the foundation for the disease concept and abstinence only philosophies. However, in some addiction counseling centers, harm-reduction is used as a way to motivate the client for change and incrementally work towards abstinence; a harm-reduction now, abstinence later approach to treatment. Therefore, more research needs to be conducted regarding MI's efficacy in promoting sobriety among patients, rather than just the construct of harm-reduction. The same area of inquiry is relevant in questioning

the efficacy of MI regarding other health behaviors. Is MI only effective at reducing harmful/unhealthy behaviors or is it equally as effective in eliminating such behaviors? A conclusive answer is not yet available at this time.

Conclusions

In summary, the change process is a difficult one, as human behavior is often habitual and long-held habits can be hard to alter. Further, even if people are able to change behaviors for a period of time, the process of permanently changing behaviors is even more difficult. Fortunately, research on this topic has helped to break down the change process and find ways to help people work through barriers. Motivational interviewing is one such empirically based technique that can assist in eliciting positive change for people, particularly in the realm of reduction of alcohol use.

Motivational interviewing is collaborative conversation style that allows clinicians and counselors to meet people where they are at in the change process and help them proceed forward, step-by-step. MI enables providers to help clients feel validated and understood while eliciting their own internal motivations for change, thus helping them combat their ambivalence from within. Often times, people are told they need to change by other people, which is highly ineffective. The use of MI techniques in counseling and health settings can help provide a safe space for people to openly talk about their struggles without feeling judged or being convinced by someone else to change.

Research on the effectiveness of motivational interviewing for reduction of alcohol use has yielded positive results, but more research needs to be conducted regarding the efficacy of MI in facilitating abstinence of alcohol use. The literature also

shows positive outcomes for the use of motivational interviewing versus other more long-term treatment options in helping change many other different health behaviors. The successful implementation of motivational interviewing within both counseling and healthcare fields can facilitate meaningful conversations and help clients move towards more positive, healthy behaviors.

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