

Research on Coaching with Motivational Interviewing

Research is formalized curiosity. It is poking and prying
with a purpose.

—ZORA NEALE HURSTON

Does coaching with MI work? Will it support our coaching profession in helping people make sustainable personal and professional changes? When your curiosity stirs up these questions, you may picture your clients' faces and recall their success stories. Research enters the landscape to offer more objective answers through studying, measuring, and testing MI in the broad applications of coaching. There are over 200 references in books, articles, controlled trials, and meta-analyses on MI's application and effectiveness in coaching. This chapter offers an overview of over two decades of research investigating the applications and benefits of coaching with MI. We also share the most recent findings on effective methods for developing competence in MI-consistent coaching practice.

APPLICATIONS OF MI IN COACHING

Before reviewing the research literature on the effectiveness of MI in various fields of coaching, here is a survey of some current applications of MI in coaching. This section focuses on physical health, mental health, education, and business coaching.

Health Coaching

MI in coaching has been used in various ways in health coaching, for example, helping people reduce the risk factors for cardiovascular disease, helping people make behavior changes for diabetes management, and improving the quality of life for people with COPD and metabolic disease. Additionally, MI-consistent

This is a supplementary chapter to *Motivational Interviewing in Life and Health Coaching: A Guide to Effective Practice*, by Cecilia H. Lanier, Patty Bean, and Stacey C. Arnold. Copyright © 2024 The Guilford Press.

coaching supports medication adherence after acute treatment and promotes physical functioning and self-management for those with progressive neuromuscular disorders. Coaches also apply MI to support disease prevention with conversations around healthy eating choices, exercise, reducing stress, and smoking habits (Plate, 2021).

The Veterans Health Administration (VHA) used a digitally tailored intervention called “blended mHealth” to track app-use patterns for health behavior change among primary care patients. Virtual health coaches using MI communicated through video and health apps. The coaches engaged in developing rapport, used open-ended questions, and assisted in goal setting for nutrition patterns and expanding physical activity. Participants who used health coaches were more engaged and remained in the program longer. Users also reported fewer depressive symptoms depending on the amount of user engagement (Zimmermann et al., 2023). Here are a few more specific applications of MI in health coaching.

Obesity and Weight Management

Coaches using MI are making an impact in addressing the epidemic of obesity by helping students with physical activity, nutrition, and overall quality of life (Wilson et al., 2018). A study on nutrition coaching using MI assessed overweight or obese students from Delaware. Results of this study indicated that after 2 years of MI-consistent nutritional coaching, students reduced their fast-food intake, increased physical activities, and successfully reduced their body mass index (BMI; Stephens, 2019).

Dutch coaches trained in MI were part of a 4-month study focusing on the quality of motivation to increase exercise and begin a healthier diet for weight loss. The coaches reported that the participants shifted to a more autonomous motivation (Rutten et al., 2014). In another study, coaches trained in MI offered telephone coaching to obese patients over 24 weeks. The patients reduced BMI and waist-to-hip ratio at 3 months (Huber et al., 2015).

Dieticians used MI as part of their core program to provide 10 coaching sessions to pregnant women at high risk for gestational weight gain. The dieticians conducted sessions via telephone. The women reported feeling more positive about mindful eating and keeping on track with healthy eating and exercise. They had an increase in fruit and vegetable intake and a decrease in less healthy choices (fast food, chocolate, potato chips). Many women felt better able to maintain weight (de Jersey et al., 2021, 2022).

A pilot study assessed the effectiveness of a Goals for Eating and Moving (GEM) intervention for weight management in primary care settings within the VHA. Trained health coaches using MI successfully used the brief health coaching protocol to coach obese patients on their food/activity journal and pedometer usage 3 days before each session. Participants in GEM tended to experience more weight loss compared to those who did not receive coaching (Viglione et al., 2019).

Obese patients in a randomized controlled trial called Path to Health enrolled in a weight management program and some of them were coached via telephone by health coaches trained in MI. The coaches used the core elements of MI to address barriers, set goals, and support the patients in resolving ambivalence around dietary changes. Results showed improved engagement with the weight management program and weight outcomes for those who were coached compared to those who received the program without a coach. Patients who received four or more coaching calls showed increased weight loss and added more fruits and vegetables to their diet (Heredia et al., 2019).

A pediatric office in North Carolina was part of a study called Healthy Eating and Activity Together for overweight and obese children. Clinical staff trained in MI provided coaching using scaling questions of confidence and ability. During the fourth visit, patients' motivation increased due to measured weight loss, which created more confidence (Tripp et al., 2011). As artificial intelligence continues to develop, automating coaching tools with MI for childhood and adolescent obesity may offer an effective intervention through a behavioral coaching chatbot (Thompson & Baranowski, 2019).

Another niche in the weight-loss industry is meal-replacement programs designed to help clinically obese patients manage and quickly lose weight. As is well demonstrated in psychotherapy research (Miller & Moyers, 2021), clients' outcomes will likely vary with the person who coaches them. Electronic questionnaires collected data from 2,000 meal-replacement program participants. Coaches using MI maintained an important focus on relationships and connection with the participants, as they encouraged positive lifestyle changes. Participants satisfied with their coaches' positive support, ability, knowledge, time, and relationship had more significant weight loss (Larson, 2019).

Diseases: Diabetes, Metabolic Syndrome

Telephone-delivered peer coaching with MI can have significant results in individuals with diabetes, especially in rural areas of the United States where residents live below the poverty line (Safford et al., 2015). By identifying problem behaviors and obstacles, participants could see positive results in their disease self-management, and they sustained these results at the 9-month follow-up (Young et al., 2014). The use of telephone-delivered MI coaching has promoted change talk, goal setting, and reduction of hemoglobin A1C in diabetes patients (Altschuh, 2015; Swoboda et al., 2017) and blood pressure in hypertensive patients (Donahue et al., 2016; Nooitgedagt et al., 2017; Patja et al., 2012). Telephone-delivered coaching can also be cost-effective and empowering, as seen with 10 patients from a diabetes medical clinic in the United Kingdom (McGloin et al., 2015). In addition, Spanish-language MI health coaching has served patients with limited English proficiency (Martinez et al., 2021). The results indicated that nurses must demonstrate MI competencies, especially the core element of empathy.

Individuals struggling with obesity received MI-style behavior change coaching. The helpers focused on engaging, asking powerful questions, guiding, and evoking the answers from within the clients, which led to change. After 6 months, participants had more self-confidence, better coping skills, more self-care, more social connections, and were better able to move outside of their comfort zone (Newnham-Kanas et al., 2011).

In a controlled trial, pharmacists and life coaches used MI to provide diabetes coaching while ensuring fidelity using the motivational interviewing treatment integrity (MITI) coding system. Life coaches help clients through personal or career challenges while co-creating tailored goals. Co-Active (working together) Life Coaching (CALC) holds the client as creative, resourceful, and whole, able to find their own answers. Core components included establishing a trusting, positive environment, ensuring a client-led agenda, using OARS, and active listening. This approach had significant positive effects on participants' quality of life, BMI, diabetes, and self-efficacy. Those with the most coaching sessions tended to have the best outcomes (Nishita et al., 2013).

One study used two methods for students with a BMI of 30-plus. One group received MI administered via Co-Active Life Coaching (MI-vis-CALC), and another used the LEARN program that provided scripted, education-based lessons. Both programs effectively reduced risk factors for type 2 diabetes and obesity. Participants in both groups reported more exercise and healthy eating than before starting the study. The MI-via-CALC group reported a positive experience due to increased self-understanding, self-reflection, and personal responsibility (Pearson et al., 2013).

Metabolic syndrome, also called insulin resistance syndrome, is a group of symptoms and another contributor to disease. It is widespread in the United States, and according to the National Institutes of Health (www.nhlbi.nih.gov/health/metabolic-syndrome), one in three adults has metabolic syndrome. Four Philadelphia College of Osteopathic Medicine Habits and Clinics conducted a Nutri One-on-One program to help modify nutritional lifestyles. Participants suffered from one or more of the metabolic indicators. After receiving MI combined with nutritional coaching, 98% of participants reported they made some progress in weight loss, energy, and motivation. Participants said their health goals were still a priority at the 1-month follow-up, and 80% planned to take more action in the future. The one-on-one setting was very successful and allowed patients to be more open and truthful about nutritional habits and obstacles (King et al., 2015).

Parkinson's Disease and Pain Management

In coaching, MI can be used in several ways to support the patient in positive outcomes in their disease management (Lancha et al., 2018). An 8-week remote peer-coaching training program used tracking devices and MI skills to increase self-efficacy and physical activity in patients with Parkinson's disease (Colón-Semenza et al., 2018).

Patients from a public hospital physiotherapy clinic with nonspecific lower back pain were part of an intervention to understand the structure behind health coaching. These patients had low recovery expectations. Health coaching notes were analyzed for themes and subjects most often addressed. Coaches used MI skills and focused on building rapport, exploring the stage of change, using readiness and confidence rulers, and planning based on the patient's preference. Results showed that health coaching interventions with MI combined with the usual physiotherapy care increased activity and the expectation for recovery (Iles et al., 2014).

Physical Activity, Sports Coaching, Physical Therapy

Patients can change their behavior with physical activity coaching with MI and feedback from monitoring tools (Pitta & Burtin, 2018). A study of physical activity coaching with MI via telephone or face-to-face delivery proved cost-effective overall. There was a modest increase in activity of 10 minutes of walking daily (Ewald et al., 2018). Active adults who received five 20-minute telephone coaching sessions focused on physical activity had positive results in BMI, self-efficacy, and health-related quality of life. Using MI and cognitive-behavioral therapy skills can affect the factors associated with physical activity maintenance (Barrett et al., 2020), and these favorable changes can be maintained for up to 9 months (Barrett et al., 2021). Evoking personal strengths and reframing clients' ideas about setting achievable goals for themselves created self-efficacy (Barrett et al., 2022).

Using MI in telephone coaching, life coaches helped inactive women increase physical activity by strengthening commitment and evoking change to overcome barriers, resulting in significant self-esteem growth. Positive effects of BMI and waist and hip circumferences were also seen (Goddard & Morrow, 2015).

The relationship between a coach and an athlete is essential as it can enhance or diminish athlete behavior and determine performance outcomes. A Canadian study exploring the awareness and use of MI in sports coaching viewed the demographic profiles, types, and levels of sports coaching. Head/assistant coaches within the university sport system received an open-ended profile questionnaire. Of the 141 certified coaches, 39 (one-third) coaches reported awareness of MI, and 40 coaches reported usage of MI. Male coaches reported more overall understanding and use than female coaches. This was the first study in Canada focused on MI in sports coaching and may contribute to new plans for coaching education programs (Wiersts et al., 2019).

Wellness Programs

Wellness programs sponsored by employers aim to promote the health of their employees. A study on a comprehensive wellness program included employees

from three companies in the midwestern United States. This study assessed the impact of telephone MI health coaching on health behaviors, medical costs, and utilization to see if there were any positive effects. After 18 months of coaching, participants significantly reduced medical costs and utilization (Young, 2017).

Chronic Diseases (HIV, Kidney Disease, Cancer)

Disease management is a coordinated care intervention to empower the patient. Coaches using MI can support chronic disease management and prevention, guiding patients to consider behavior change. Eight peer-reviewed studies on chronic disease management and coaching techniques revealed that coaches used MI with positive results (Gallamore, 2022). Also, coaching with MI for chronic disease has reduced systolic and diastolic blood pressure (Burns, 2022) and increased physical activity in individuals with lower back pain (Amorim et al., 2019; Ellingson et al., 2022). Home health aides working with chronic illness used MI to facilitate patients' self-care (Russell et al., 2017).

In Australia, clinicians found that coaching with MI helped health professionals managing chronic diseases prepare patients for behavior change, develop a trusting relationship (Hogden et al., 2012), support self-efficacy and behavior change (Linden et al., 2010), and assist with pain management (Rethorn et al., 2020).

MI can assist in managing chronic diseases. For example, a FLEX intervention with HIV-positive African American youth included home-based coaching. This approach increased physical activity and reduced viral loads (Budhwani et al., 2021).

Managing chronic kidney disease requires dietary boundaries, self-management, and the potential of advanced care planning (ACP) (Lupu et al., 2020). Coaching patients on ACP with MI shows better patient engagement and lessens the stress of potential decline (Lupu et al., 2022). Registered dietitians provided a telephone coaching protocol using MI, goal setting, stage of change, barriers, and participant-determined solutions to the obstacles. After 12 weeks of coaching, participants reported their coach was “engaging, approachable, and one of the family.” Improved understanding of nutrition's impact on kidneys empowered patients to self-manage their disease (Warner et al., 2019) and increase self-efficacy to enhance their quality of life (Lin et al., 2021).

Nurse Coaches

Nurse coaches can use MI while working with caretakers of loved ones (Sepulveda et al., 2008) and directly with patients to manage chronic disease and reduce rehospitalization in chronically ill patients (Dwinger et al., 2013; Haerter et al., 2016). Nurse coaches also help employees suffering from celiac disease (Smith, 2016).

In cancer care, nurse coaches using MI have helped patients self-manage pain relief (Fahey et al., 2008) and experience self-direction in their care (Helm-ing, 2023). Nurse coaches providing cancer pain management to six outpatient oncology clinics were trained extensively in MI and coaching protocols. The nurse coaches attended monthly meetings to ensure continued reliability and the use of MI principles and evaluate the patients' priorities and readiness to change certain behaviors. After four calls of 30 minutes each over 6 weeks, patients reported significantly less pain and improved energy, well-being, and overall health (Thomas et al., 2012).

Nurses using MI can also provide chemotherapy support by being empathic listeners, exploring barriers, asking permission to brainstorm ideas, and supporting patients in their personal choices and self-management. This approach reduces stress symptoms and the perceived gravity of a disease (Coolbrandt, 2018).

Nurse coaches using MI can support cancer patients with adverse side effects after treatment and empower cancer survivors toward better self-efficacy and management of the negative health effects of chemotherapy or radiation (Bouwman et al., 2019). Nurse coaching with MI can be tailored to the patient's stage of change (Bennett et al., 2005) to increase health-related quality of life (Kivelä et al., 2020).

Medication Adherence, Substance Use

Medication adherence has been another beneficial application of MI-based coaching. With glaucoma patients, for example, medication adherence significantly improved in 95% of participants (Newman-Casey et al., 2020). MI has helped providers use more positive talk and curiosity about patients' opinions, improving communication while supporting medication adherence (Beach et al., 2015). Coaches used MI to explore glaucoma patients' perspective of health and values, which increased eye drop adherence and overall general health (Vin et al., 2015). Beyond improving medication adherence, MI may also strengthen patients' confidence to ask questions of their providers (Cho et al., 2021).

Pharmacy health coaches can work with substance use disorder patients. A focus group discussion at Banjarmasin College of Health Science, Indonesia, researched the perspectives, possible solutions, and competencies a pharmacy health coach needs to serve addicted outpatients. The conclusion was that coaches needed to emphasize autonomy and encourage patient active engagement. Also, communication skills and mastery of MI skills were required (Alexxander et al., 2021). Pharmacists using MI skills and SMART goals can help improve patients' quality of life, motivating them to make better choices and be more aware of their health (Branson et al., 2020).

Mobile recovery coaches (MRCs) used a smartphone application and web portal to work with high-risk adults using opioids. The MySafeRx web interface allowed participants access to pill dispensing, text messages, and videoconferencing

for coaching. MRCs were members of the Motivational Interviewing Network of Trainers (MINT) or trained in MI. These coaches remained patient-centered while visually confirming and motivating participants in medication adherence. Positive outcomes were seen in this self-administration program for treating opioid use disorder during periods of vulnerability (Schuman-Olivier et al., 2018).

Peer recovery coaches (PRCs) using MI at Boston Medical Center's Faster Paths to Treatment clinic were part of a 6-month intervention collecting data from HIV-negative patients using opioids. The PRCs conducted 20-minute sessions evaluating readiness to change and the development of self-directed health and wellness plans. The majority of communication was through telephone and text messaging. Participants felt that being guided by a PRC with personal experience helped to facilitate and promote their progress, feeling positive and satisfied with the intervention (Martin et al., 2023).

Tobacco Use, Transportation Industry, and Lifestyle Behaviors

Tobacco cessation programs that use pharmaceuticals and MI-based coaching can have positive effects ("A clinical practice guideline for treating tobacco use and dependence," 2000). Kaiser Permanente, Northern California, compared patients' tobacco use with and without MI-based telephone coaching. Individuals coached using MI had considerably higher rates of quitting smoking and filling prescriptions for tobacco cessation medication. Telephone-based coaching was as effective as in-person classes (Boccio et al., 2017). Also, peer coaches using MI supported Medicaid members in Connecticut in smoking cessation. The Rewards to Quit program helped 138 current smokers through a telephone and in-person intervention for 6 months. Coaches using MI evaluated readiness by using measures of confidence in quitting and stages of change. Smoking cessation increased significantly with each coaching session, with additional people quitting after each encounter (Barcelona de Mendoza & Damio, 2018).

One study assessed the impact of using MI and the CALC model to address smoking behavior, personal competency, identity, and smoking cessation. Data collected included factors such as self-esteem and self-efficacy. The intervention group significantly reduced smoking behaviors and increased personal competency (Mantler et al., 2015).

Transportation Services Industry

Unhealthy lifestyle behaviors impact the transportation service industry as they do across many sectors. Irregular schedules with various shift work can create extended work hours, shorter sleep patterns, and less recovery time, influencing overall health and well-being. In a study at four Swedish transportation companies, employees received a Web-based health questionnaire with nine different health sections. This study aimed to investigate the impact of instant feedback

from the questionnaire and MI-based telephone coaching on the health of the participating transport workers.

Although the Web-based feedback and optional telephone coaching did not positively affect employees, it did increase short-term motivation to change diet and physical activity behaviors. This study addressed a group of mostly middle-aged men working in the transport industry who are underrepresented in most lifestyle studies. Research indicates that men often delay seeking health care. Therefore, their increased motivation in this study is significant. Even with no health effects from this type of intervention, it is noteworthy that this group had increased motivation to adopt healthier dietary and physical activity habits. Future research is needed to study further motivation's effects on short- and long-term behavior changes (Solenhill et al., 2016).

Social Workers Using MI Coaching

Social workers provide services to economically, physically, and socially disadvantaged individuals. They continually expand their knowledge by learning new evidence-based tools to help families, such as coaching with MI. An online survey of 171 social workers who work with young children and families revealed that most social workers use and understand the coaching methods, such as emphasizing autonomy and asking open-ended questions, to help evoke patients' solutions, goal-setting, and tailored approaches for each family. Even though social workers are not credentialed in coaching, they report using coaching strategies (Burroughs et al., 2017). A review of 11 studies of social workers' perceptions of using MI and the impact on the users of their services revealed that users were very positive and felt it was beneficial (Boyle et al., 2019).

Children's social work can be challenging due to the child abuse, lack of family support, and criminal operations that social workers encounter. One worker explained the righting reflex, "We are driven to fix things, to put things right." Using a focus-group design and structured interviews, seven social workers participated in a study after 6 months of coaching qualification training. Over 10 months, coaches were paired with parents, caregivers, and young individuals. The coaches used MI skills and a motivational frame model to foster an optimistic reconnection between parents and children, emphasizing the importance of "small wins" to align with their values. This study showed that social workers improve their practice by enhancing their communication skills and self-efficacy, increasing effectiveness when practicing like coaches (Triggs, 2020).

Social workers from seven London authorities trained in coaching with MI were able to work with parental alcohol misuse. Coaches found empathic listening was more impactful than confronting the parents, along with a shift from imposing their agenda to accepting the parents' agenda (Forrester et al., 2008).

Parental involvement in child welfare services can facilitate positive outcomes. As part of a project to evaluate family processes, Alamance County in

North Carolina used Comprehensive Family Assessment Guidelines, including MI. Although caseworkers received training in MI skills, research has shown that training in MI alone is not enough. Thus, MINT members conducted ongoing coaching to help transfer learned MI skills into practice. The trainer then met with staff once a month to continue building skills. Caseworkers reported that MI enabled them to handle challenging issues and long-held points of view and afforded a different way of operating within families. Overall, caseworkers were very positive about their MI training and reported that MI helped them deal with strenuous situations and impacted their attitudes toward family members in a positive and friendly manner (Snyder et al., 2012).

Mental Health Coaching

In addition to health coaching, MI can be used to support mental health care. Current research indicates that MI-based coaching interventions can yield improved physical and mental health outcomes (Clark & Hampson, 2001). The development of digital technology continues to improve health and medicine. Digital apps and tools can track, measure, and monitor medical and physical fitness results and mental health. Digital cognitive behavioral apps combined with coaching can increase patient compliance and allow users to engage and complete messages at their own pace.

Digital Coaching and MI, Dual-Intervention Model

A dual-intervention model combining cognitive-behavioral-based methods (relaxation, mindfulness, etc.) with MI-based interactions included a digital health coach, who received 90 hours of evidence-based strategies based on national coaching standards. At the same time, the patient used a mobile app that focused on anxiety or depression, and the patients could choose.

The secondary objective was an evaluation of proficiency in MI on behavioral health results. This study demonstrated that incorporating coaching and technology led to higher engagement with the app and that MI protocols can be integrated into the digital platform. There was increased user engagement with digital health coaches (DHCs), and the outcomes increased when the DHC was proficient in MI. The DHCs that engaged, supported, and encouraged users had more change talk. The highly skilled and MI-proficient coaches had users with much more activity, more time within the app, and more positive clinical results (Serio et al., 2022).

Developing digital mental health interventions using MI supports patients through text-based coaching protocols. This method advances the ability to provide additional help in an engaging and effective way (Lattie et al., 2019). Also, as health coaches stay within a session time limitation, text-based dialogue systems

are available for SMART goal summary, which helps the coach recall the individual's goals discussed during the dialogue (Gupta et al., 2019).

Brain Health Champion health coaches conducted a telephone-based intervention using MI skills for patients with cognitive disorders. Forty participants enrolled from Brigham and Women's Hospital Alzheimer Center were coached over 6 months. Results showed significant increases in physical activity, adopting of the Mediterranean diet, cognitive and social involvement, and enhanced quality of life (Schwartz et al., 2019).

Coaching through Ambivalence

Coaching with MI can help clients resolve ambivalence between the status quo and their desired ideal selves. An approach that studied the context of three different coaching scenarios examined shame issues and persistent ambivalence expressed and acknowledged by the client and coach. Coaches used the MI spirit to empower clients to become their own advocates to make changes. All participants in this research study began a behavior change, and although at different stages, they all resolved ambivalence and started creating their future actions. MI allowed the participants to take charge and change behaviors brought on by shame (Andrieux, 2019).

Childhood Adverse Events

Childhood adverse events can have an impact on health and well-being. A Parent Connect program with MI-trained providers combined childhood misfortune screening with parent coaching in six pediatric care facilities. Caregivers of 580 patients participated in the coaching intervention. Parents and children significantly reduced sick visits and reported a positive environment (Eismann et al., 2021; Eismann et al., 2023).

Veterans' Mental Health

Veterans with mental health issues struggle to manage their lives, and many do not seek treatment for their disabilities. Avoiding treatment may be due to physical injuries, pain, or brain injury (Richards et al., 2016). Veterans providing peer-delivered telephone coaching using MI participated in an intervention to improve mental health among fellow veterans over 8 weeks. Psychologists trained the peer coaches in MI using open-ended questions, empathy, and rolling with resistance. Participants felt peer coaches cared and were helpful with resources, offered encouragement, and accountability with goals. Veteran coaches had positive outcomes on quality of life, mental health engagement, and self-care (Seal et al., 2021).

Employee Mental Health

Oregon Health and Science University evaluated work conditions for their 11,000 employees as part of their health benefits. Previous health risk assessments established that employees experienced high-stress levels and below-average mental health. Health professionals trained in MI conducted a 3-month health coaching intervention using MI-based health coaching methods. At the end of the study period, a health survey reported that the coached group significantly improved physical and mental composite scores (Butterworth et al., 2006).

Caregivers

Mental health caregivers in Spain participated in a telephone coaching with MI intervention. Nurses extensively trained in MI provided coaching over 3 months to caregivers of older individuals with dementia from a psychogeriatric day center. Caregivers found they had more self-efficacy in their care, less perceived stress, and reduced emotional burden (Sarabia-Cobo et al., 2021).

Educational Coaching

MI-consistent coaching can help teachers choose and apply techniques to improve student outcomes. This approach motivates and supports teachers in implementing changes in current methods or interventions. MI-consistent coaching also supports teachers in improving classroom management, positively impacting student behavior and teachers' ability to anticipate and respond to problems (Bradshaw et al., 2018; Reddy, 2023).

Coaching with Fidelity for Behavior Management and Student Outcomes

Coaching with MI may play an essential role in promoting changes in teacher practices and student outcomes but coaching with fidelity (practiced as designed) is an important consideration. A meta-analysis combining randomized control trials within the educational system assessed several areas. The study evaluated the coaches' self-rating and independent coders' ratings and teachers' feedback on coaching compliance (measurement, quality, and participant receptivity) from 151 teachers in 18 schools. Results showed that the coach's self-compliance ratings were close to 80% with independent evaluators and proved high compliance on average. As for coaching fidelity with embedded MI, over 70% of teachers showed compliance with high fidelity. In lower fidelity, coaches still maintained compliance of over 60%. Teachers using high-fidelity coaching engaged in less-reactive behavior management and had fewer instances of noncooperation by students within the classroom (Pas et al., 2022).

Coaching other teachers using MI-consistent language facilitated change talk and empowered teachers to build self-efficacy (Pas et al., 2021). However, implementing classroom changes can be challenging due to a lack of resources, students with multiple learning needs, or resistance within the administrative staff. For instance, embedding MI within educational programs helps to improve existing coaching models such as engaging, goal setting to identify needs, planning, and giving feedback using positive statements. This model supports teachers' self-efficacy while using positive behaviors and strategies to manage classrooms more effectively (Shernoff et al., 2017).

When using MI coaching to support teacher implementation of classroom-based interventions, teachers are 13 times more likely to implement an intervention (Reinke et al., 2014). Similarly, new teachers are faced with stressors in high-poverty communities. Still, when integrating MI into the coaching model, teachers felt it helped them to prepare well, have a backup plan, and create a sense of predictability (Shernoff et al., 2015).

Coaching in Higher Education

MI-consistent coaching was able to support undergraduate students in developing positive learning abilities. Using the coach approach to enhance self-awareness and motivation, students became more mindful and self-reliant (Peng & Wang, 2020). Coaching with MI also offered clinical medicine students individualized skills, helping them learn tips to improve patient experience and navigate barriers during patient encounters (Klig et al., 2023).

Coaches using MI helped full-time undergraduate students who experienced high levels of stress. CALC coaches used MI to coach students while remaining neutral and asking open-ended questions to empower students to find their own answers and solutions. Students reported lower levels of stress, and some felt they could manage the stress better (Fried & Irwin, 2016).

Academic coaching has become a support for newly enrolled higher education students. Attrition is an issue in the first year of university, and peer-led coaching with MI helped students become advocates for each other. A midwestern U.S. university studied retention theory and academic coaching practice. New coaches attended workshops for training on the Motivational Interviewing Training and Assessment System (MITAS). As their roles evolved, peer coaches became less fixers and more facilitators or advocates for their peers, leaning on the MI process to engage in communication and bring out individual strengths and ideas. Using the MI spirit, the coach–client relationship embodied a partnership of equals, leading to meaningful relationships and community between the students and coaches (Warner et al., 2018). MITAS provided a support structure where students felt valued, heard, and open to discussing issues they were dealing with in a safe environment. The methods used within MI created a trusting and welcoming experience for each student's situation (Gibbs, 2018).

Some college students may experience stress related to adjusting to new environments, making new friends, and maintaining proper nutrition and exercise, which can lead to health issues. When integrating MI with CALC tools, students can significantly reduce stress and have positive experiences (Fried & Irwin, 2016).

Using MI as a framework in schools can guide coaching with models like Motivational Interviewing Navigation Guide (MING) to increase involvement and fidelity execution (Lee et al., 2014).

Coaching Behavioral Problems

MI can help teachers manage behavioral problems among students on the autism spectrum, leading to improved conduct over time. These skills allowed teachers to understand and shed light on their motivations/preferences to improve the classroom setting (Pas et al., 2016).

Consultants used motivational rulers to assess 29 teachers in Ohio and Florida at eight participating schools. Teachers were asked to identify one student currently with or potentially at risk for attention-deficit/hyperactivity disorder and to create a daily report card identifying behaviors and goals. The plan's effectiveness was evaluated by measuring teachers' importance and confidence levels over 2 weeks. Both importance and confidence ratings showed similar results. Teachers with higher ratings of importance and confidence showed nearly twice the rate of improvement toward students in classroom violations, teacher responses, and rates of praise compared to those with lower ratings. Highly confident teachers increased their usage of recommended strategies by almost double in the first two sessions, while teachers with lower confidence also showed some improvement in using strategies (Owens et al., 2021).

Business Coaching

MI has been used in business leadership and management to nurture employees' sense of acceptance and accomplishment (Merrill, 2015) and to strengthen self-regulation skills (Nelson, 2022).

Empathy as a Factor for Retention

Business coaches can partner with clients to address career satisfaction, build success, and navigate what is most important to the client and their organization. Possible results of coaching include clients dropping out or canceling all remaining coaching sessions prematurely or feeling they have reached the desired goal and no longer require support. In two studies, 30 German coaches with an expert level 4 (master's degree and additional training) participated in a study regarding client dropout. The coaches reported that the client canceled 6.11%

of client engagements prematurely. Coaches identified empathy as crucial when sessions became too intense or invasive. Results revealed that change motivation was a significant factor in client dropout, unfulfilled expectations, and the relationship between the coach and client. MI provides a positive environment within a trusting relationship to facilitate behavioral change and considers the factors of readiness, ambivalence, and reluctance to change. Empathic listening and understanding the client's perspective can lessen the resistance to change behavior (Schermuly, 2018), especially when the individual is in the precontemplation and contemplation stage of change (Harakas, 2013).

Executive Coaching

Executive coaching supports senior leaders within organizations to develop performance skills while working on setting goals and challenges. Peer coaching using MI skills within individual professions brings insight to coaches and their teams and increases rapport and empathy while discussing real-life situations. Peer coaches receive less training but can implement the required recommendations and show improved outcomes (Morford et al., 2021). The INSEAD Business School, France, studied successful group coaching and the concepts supporting change.

A model for successful peer coaching support was presented to senior executives worldwide who were enrolled in the leadership development process. Coaches who use MI can aid executives in examining overlooked behaviors, protective measures, and irrational actions. A peer-coaching support model can provide an effective group experience for change by addressing ambivalence and using four guiding principles of MI: expressing empathy, developing discrepancy, rolling with resistance, and supporting self-efficacy. Leadership success and feedback were positively affected at 3- and 6-month follow-up (Ward, 2008). Executive coaches who used a partnership approach helped individuals feel supported as they worked toward behavior change. These coaches remained positive and worked with clients to identify areas of improvement while guiding them toward realistic goals to enhance their workplace performance (Passmore, 2007).

Leaders faced with conflicting employee personality traits in the workplace turn to MI-style coaching to help develop employees' emotional regulation. Coaches used OARS and mindfulness to help individuals learn to address emotional regulation within conversations. Results found that coach motivation training significantly increased perceived emotional regulation and supported positive relationships (Nelson, 2022). Executive coaches dealing with high-stress levels can use MI, goal setting, and action planning to gain self-understanding, happiness, and productiveness (Kiffer & McKee, 2007).

Executive coaches also learn emotional knowledge and how to interpret meaning accurately using MI skills of listening, planning, goal setting, and evoking self-confidence for speaking in front of large audiences, which support leaders'

development (Peltier, 2011). Employees feel a sense of welcome and accomplishment when leaders use the spirit of MI within organizations. According to Merrill (2015), leaders who guided employees with the MI spirit of compassion, acceptance, partnership, and evocation found these to be essential when addressing issues of absenteeism and motivation.

Executive coaches used MI skills of listening, planning, goal setting, and evoking self-confidence to address emotional intelligence within the workplace. Employees felt a sense of welcome and accomplishment when leaders used the spirit of MI within organizations. This approach supported the leaders' development in speaking to large audiences (Peltier, 2011).

These research studies highlight the advantages and insights gained from applying MI in health care, mental health, education, and business coaching domains.

EFFECTIVENESS OF MI IN COACHING

From chronic disease to education, MI's effectiveness correlates with conversations about change and the application of MI spirit, methods, and skills during coaching. MI in coaching is effective when coaches connect individuals' behavioral goals with their values and personal visions of health.

Diabetes Care

The length of time spent with health coaches influences the overall effectiveness (Cinar & Schou, 2014; Gordon et al., 2017). Extended interventions show more positive results, especially in diabetes care, where a systematic review of randomized control trials revealed that a coach can positively impact high-risk individuals (Wan et al., 2018). Coaching with MI and an added tool (ASK-20) significantly reduced the average number of barriers (Melko et al., 2010), and combining MI with researched health education can help significantly reduce BMI in patients with diabetes (Schmittdiel et al., 2017).

Coaches in Australia conducted a telephone diabetes prevention program and used MI with significant positive results in body weight, waist circumference, nutrition, and physical exercise (Cranney et al., 2019). Likewise, in Taipei, Taiwan, while evaluating the effectiveness of patients' blood sugar management and self-efficacy in diabetes care, coaches used open-ended questions, active listening, and direct communication skills. After 6 months of coaching, patients lowered their HbA1c, showed higher levels of physical activity, and increased self-efficacy (Chen et al., 2019).

When coaches combined materials and tools, such as exploring ambivalence and readiness rulers to support self-management, patients with diabetes showed

positive outcomes (Wong-Rieger & Rieger, 2013) and improved self-image (Adams, 2013).

Diabetes and Mobile Tracking Devices

Inactivity and unhealthy eating habits are risk factors for diabetes. Nurse coaches trained in MI used mobile tracking devices to elicit motivation, set goals, and measure progress while addressing barriers. There were significant changes in confidence in managing diabetes and decreased depressive symptoms (Young et al., 2020).

Coaches using tailored technology integrating MI provided support and a possible tool for minority communities facing self-care obstacles in their diabetes management (Bailey et al., 2020; Heisler et al., 2017) in a more cost-effective way (Oksman et al., 2017).

Nurse coaches using MI skills empowered patients to manage their diabetes and provided the confidence needed to address their challenges (Miyamoto et al., 2019) by using health tracking technology to calculate activity, calories, and sleep quality. After 9 months, coaches saw positive results in health choices, mindset, resource usage, and physical and emotional health (Fazio et al., 2019). Coaches have positively affected uncontrolled diabetes, hypertension, and hyperlipidemia beyond their coaching sessions, with changes sustained for a year or more after coaching sessions ended (Sharma et al., 2016).

Education

MI-based coaching has also been evaluated in educational settings. After sixth-grade students completed coaching with MI sessions for 8 weeks, students facing mental health issues reported positive relational and personal resilience effects (Lee et al., 2021). College students in China taking a psychology class as their second language significantly improved their mindful agency, self-efficacy, learning motivations, and emotional intelligence (Wang & Lu, 2020).

Employees

An in-person wellness program assessed the quality of life, depressive symptoms, and perceived stress levels of 100 employees who were frequent health care users. Participants completed scaling questionnaires rating levels of function in each area. Coaches using MI conducted 12 weekly sessions to set goals and explore behavior change. Participants learned new skills from baseline to 12 weeks, reported significant improvement in all three areas, and maintained the improvements at the 24-week follow-up (Clark et al., 2014).

Cardiovascular Risk

A review of 15 randomized controlled trials measured the pooled effects of health coaching on cardiovascular risk factors (i.e., by providers, length, and treatment elements). Coaches used MI in face-to-face, text, and telephone delivery while collaborating with different teams (registered dietitians, dietetic students, and fitness professionals). The most common ingredients of health coaching were MI and patient education. Positive influences were seen after 3 weeks but not after 12 months due to the study period. This review showed that coaching with MI in different forms and session lengths could be effectively administered to patients with cardiovascular risks (Yang & Song, 2020).

Chronic Obstructive Pulmonary Disease

Chronic obstructive pulmonary disease (COPD) is a chronic inflammation of the lungs. Supporting individuals in the self-management of their disease empowers patients to take control of their health. A 3-month study of MI-based coaching measured behavior changes and mindfulness practices in patients with severe COPD. Coaches used the spirit of MI, compassion, acceptance, partnership, and evocation and listened for change talk about exercise. Patients had increased exercise, felt value and accountability, and experienced a new level of awareness. Their mindfulness practices were continued for 2 years beyond the study (Benzo, 2013). Patients have also reported fewer symptoms of depression and hospitalizations, along with higher-quality care (Thom et al., 2018). Reducing rehospitalizations for COPD patients is a goal of most hospitals. Coaching with MI skills via telephone significantly decreased hospitalizations 1, 3, and 6 months after discharge (Benzo et al., 2016). Results showed significant improvements in fatigue, emotions, and overall health using the spirit of MI (Rehman et al., 2017).

Remote monitoring of patients, along with health coaching, can significantly improve the quality of life and physical and emotional health in COPD patients (Benzo et al., 2022). Home-based programs allowed MI coaches to follow rehabilitation and health status protocols through a computer tablet and activity monitor (Benzo et al., 2018). Patients felt supported and encouraged and had improved self-management (Benzo et al., 2021, 2022).

Coaching patients with COPD using MI helps increase patient self-management. A meta-analysis of 10 randomized controlled trials of MI with data for 1,959 people showed significantly improved health-related quality of life and significantly reduced COPD-related hospital admissions, though not all-cause admissions. There was also a significant improvement in medication adherence and exercise conformity (Long et al., 2019).

Nutrition and Eating Patterns

Similar results were found with Iranian homemakers coached with MI in nutrition. After the intervention, there was a significant difference in the mean score of the healthy nutrition index between the intervention and control groups. Coaching nutrition disorders with MI was an effective intervention and generally increased healthy eating after intervention (Abdolahpour, 2019).

A study of obese and treatment-resistant patients in Sao Palo, Brazil, found that after 12 MI-consistent coaching sessions, patients developed new eating patterns and lost 25 pounds while playing tennis three times per week. Nutritional habits improved, and patients had decreased fat and increased fiber intake, with a reduced waist circumference. The patients' caloric energy intake at baseline was 2,200 (kcal/day) and dropped to 1,500 per day after 12 weeks of coaching (Lancha et al., 2018).

Veterans

Chronic diseases affect veterans throughout the United States, and most receive care through VHA medical clinics. In 2006, the VHA created a program called MOVE! to offer treatment for overweight and obese patients. The program provided nutritional information and coaching delivered by registered dietitians. Using MI and a stages-of-change-modified motivational interviewing tool, coaches could identify specific behaviors veterans felt they were able and ready to change in their dietary choices. Coaches were also able to help participants move through the stages of change for individual behavior on managing or being able to lose weight. After 6 months, decreased BMI and increased readiness to change were observed (Shahnazari et al., 2013).

A 4-week brief telephone MI-based coaching intervention included 417 veterans from three primary care clinics. Coaches helped to co-create SMART goals to reduce cardiovascular disease risk, along with their values and choice of a prevention program. During the 6-month evaluation, results showed higher enrollment and participation and higher patient activation (Oddone et al., 2018).

In-Person versus Online Coaching

An 8-week, self-directed behavior change intervention compared in-person coaching versus online coaching with MI. This was to determine if the delivery method influenced behavior change. Participants could choose which method and behavior they would like to target. Results showed that participants had greater outcomes from baseline regardless of how coaching sessions were delivered (Bus et al., 2018). But when comparing in-person versus online MI-based coaching, there were significantly higher healthy eating index scores for in-person

coaching. MI in coaching effectively supports individuals in creating a path for behavior change.

HOW COACHES LEARN MI

While MI is taught at many institutions offering coaching degrees, coaches also expand their knowledge through reading, coursework, training programs, online courses, and workshops. The research on teaching and learning MI is substantial enough to merit multiple meta-analyses. Here is a summary of lessons learned so far (quoted with permission from pp. 268–269 of Miller & Rollnick, 2023):

- MI is learnable. Averaging across a variety of training approaches, providers usually do show medium to large increases in MI practice skills.
- Learning MI on your own is not easy. Just reading about MI or watching demonstrations is unlikely to improve your skillfulness.
- Similarly, attending a class or workshop on MI may produce some short-term improvement in practice skills but is usually not enough in itself to sustain competence.
- People normally overestimate their own proficiency in the practice of MI.
- Receiving objective feedback and expert coaching based on observed practice strengthens learning and maintenance of competence in MI. When we are invited to offer a training workshop on MI, we are now likely to ask, “Do you want your staff to know *about* MI, or do you want them to be able to do it?”
- The ability to learn MI seems unrelated to one’s years of education. Even people with advanced degrees can learn it!
- Demonstrated skill in empathic listening (as described in our chapters on engaging skills) is a very good head start in learning MI. When we had to train therapists for a multisite clinical trial within a relatively short period of time, we screened and pre-selected for reflective listening skills, which substantially facilitated learning of MI.

Continued Training with Feedback

A meta-analysis of training studies showed that coaches who had three to four coaching sessions with feedback over 6 months are likely to sustain their MI skills (Schwalbe et al., 2014). At a southwestern U.S. university, peer-led health coaches were interviewed about their training, use, and supervision of MI. The coaches completed 45 hours of the MI curriculum using diverse training methods, and as they gained experience, their self-perception of effectiveness and comfort level with clients improved over time. Coaches felt more comfortable with a structured list of specific questions, whereas more experienced coaches could practice MI

with more flexibility. Individual and group supervision supported MI learning while building a sense of community. This study highlights the importance of supervision in helping peer health coaches develop (Lima Fogaca et al., 2023). As the teacher coaches of these institutions receive training on MI, mentoring programs help facilitate and provide professional growth.

A teacher coaching model provided MI training to improve instructional coaches' effectiveness with classroom teachers. Coaches received 3 days of training that included the theory, core competencies, and MI practice. Still, results showed that most coaching conversations were MI-inconsistent and that coaches showed no significant change in their communication style. These findings suggest that more is needed to help coaches develop, and considerations for additional practices, continual training, and supervision, with real-time feedback, are recommended (Lyons et al., 2017).

My Way Program

There are other documented examples of MI training for coaches. One is the My Way program within chronic kidney disease clinics focusing on patients' goals and desires. Registered nurses, social workers, and advanced nurse practitioner coaches received 3 hours of video training within the curriculum. After 16 weeks of coaching, there was a significant improvement in patient engagement and documentation of advance care planning at one of three clinical sites (Lupu et al., 2022).

Medication Adherence

Another program trained licensed dietitians to improve medication adherence using MI. Their training included a 16-hour workshop from a certified MI trainer, monthly meetings, and role playing. They incorporated using the readiness ruler, addressing ambivalence, and setting goals. At 6-month follow-up, 96% of trainees reported that they were satisfied or very satisfied with the coaching program and were able to reduce the barriers to medication adherence (Melko et al., 2010).

Eating Disorders

MI-based coaching helps to support families dealing with the eating disorders of loved ones through behavior change. A carer coaches program sought to develop coaches' MI proficiency in counseling people with anorexia nervosa. Ten telephone coaching sessions were offered over 5 months. Coaches were trained in MI principles using the MITI rating system. Results indicated that as coaches become more experienced, their proficiency scores increased. Also, coaches with previous psychological education scored at higher levels of treatment fidelity (Macdonald et al., 2014).

Personal Trainers

Personal trainers are a great resource and, when trained in MI, can promote effective and sustained behavior change. As many coaching schools now include MI in their curriculum, it is common to find personal trainers using MI. The NCCA-accredited certified personal trainers had videos, fundamental skills, and an e-learning course over 3 months. Personal trainers showed a significant change in their knowledge of MI and measured competency to apply it. Their clients had a slight BMI decrease and increased physical activity levels (Gray & Hipp, 2021).

Graduate Student Coaches

Graduate students learning health coaching and MI skills worked with a campus physical activity program. Obese college students were paired with student coaches in a program focused on the learning experience of students' skills, attitudes, and self-efficacy over 15 weeks. Baseline and postsurvey questions given to health coaches showed significant improvements in the coaches' confidence and use of MI skills for behavior change (Ickes & McMullen, 2016).

Clinicians and Staff Workers

Leadership support is crucial in cultivating a culture of continuous learning and knowledge-sharing among staff (Collins et al., 2018). Smartphone-based MI coaching programs reduced clinician and staff burnout and barriers to behavior change, making them feel more skilled and connected.

A pilot study examined the effects of teaching MI to clinicians and staff to improve clinician and patient satisfaction. Clinicians in the intervention clinics had improvements in burnout scores, self-rated MI skills, and perceived cohesion, but the clinicians in the control clinic reported worse scores. This study to teach MI to staff and clinicians in a shared environment is the first of its kind to show some benefit of training an entire clinic staff in an MI-consistent coaching model (Pollak et al., 2016).

Nursing, Pharmacy, and Physical Therapy

Nursing, pharmacy, and physical therapy students trained in coaching and MI through the diabetes self-management education program gained the knowledge, skills, and attitudes needed to help patients change their behavior. They realized facilitating and empowering individuals to make lasting change was rewarding and takes time (Engelhard et al., 2018).

Health Practitioners

Health practitioners have questioned the practicality and feasibility of using MI within their practice. This limitation was the subject of a pilot study to assess the impact of a 1-day MI training as applied through the CALC model. The theory was that improvements in physicians' attitudes, perceived competence, and autonomy would facilitate patient health behavior.

After a 7.5-hour interactive MI workshop applied through CALC skills, physicians significantly increased perceived autonomy, competence, and attitudes toward their ability to facilitate patient behavior change. This improvement continued 4 weeks after the training workshop (Wiley et al., 2011).

The confirmation that MI can be easily integrated into various coaching models is noteworthy. Research suggests that the most likely reason for CALC's effectiveness is that its tools provide tangible ways to incorporate MI into practical use (Newnham-Kanas et al., 2011).

Dental Hygiene Students

Second-year dental hygiene students received coaching to teach brief MI for patient information and adherence counseling. MITI and MISC coding systems measured behavior skills. Results showed that students significantly improved MI adherent interventions (Croffoot et al., 2010).

Tools to Monitor Fidelity

Developing tools to monitor fidelity can support coaches with competency and implementing delivery. The MITI coding system was also found to positively rate coaching webinars within 17 community behavioral health organizations and community health centers. Coaches using MI maintained high fidelity in usage and delivery, using more reflections than questions and more open-ended than closed-ended questions (Hettema et al., 2014). The Motivational Interviewing Coach Rating Scale (MI-CRS) was used for Fit Families, where 181 African American youth between age 12 and 17 were considered obese. This tool allowed coaches to listen to interactions and instantly rate 12 items in a coding system, enabling immediate feedback. The MI-CRS showed strong development and an efficient and effective fidelity calculation (Naar et al., 2021).

Measuring Proficiency

School research intervention practices recognize that involving parents is essential for child mental health challenges. In a positive parenting intervention measuring group-level and coach-level fidelity, 20 coaches trained in the MITAS were part of a school-based trial called First Step Next. Proficiency was measured with

the MITI scale. In summary, out of the 245 sessions, the MITI global technical scale was within the basic fidelity range. Except for seven sessions, coaches using MI technical skills were above the basic fidelity threshold. The average scores for technical skills, complex reflections, and reflections to questions did not vary significantly. MI quality varied between sessions and coaches, as the between-session variance was more than three times larger than a between-coach variance. This may suggest that MI skills quality can vary from session to session. When looking at whether coaches meet or exceed MITI's fidelity thresholds, coaches met 70–100% of average scores on the four measures. These scores were lower when the requirement to complete basic skills was in *every* session. This study suggests that proficiency in MI skills advances over time (Small et al., 2021).

A recent coaching tool, Motivational Interviewing Evaluation Rubric, was developed to supervise and practice MI skills and may help with on-time feedback in community-based youth programs. This tool showed quality validity and consistency with MI spirit and MI processes. (Now referred to as MI tasks.) This tool can be helpful in the collection and study of MI skills within the trials (Báez et al., 2020).

Also, palliative care clinicians received coaching to learn MI and realized they were learning new skills that helped with the most challenging patient conversations. Clinicians improved compassion when responding to emotion and had less burnout (Pollak et al., 2020). Cardiologists who learned the four core skills of MI from coaches improved empathic communication with patients, resulting in fewer interruptions and better understanding. Cardiologists also increased the statement, “What questions do you have?” which allowed patients to feel heard and have more time with the physician (Pollak et al., 2023).

The University of California, San Francisco, partnered with Hawaii Community Health Centers (CHC) to see how staff training on MI coaching could improve patient communication. Sixty-two health coaches from nine CHCs were trained. Focusing on one location, Lanai Community Health Center, staff reported that training methods helped assess patients' health comprehension and motivation stage. Nonmedical trained staff found that the training helped them remain patient-centered, support patients in adopting new behaviors, and promote a shared understanding of goals. Staff reported that the training enhanced their communication and ability to motivate patients (Domingo et al., 2019).

As research on MI in coaching is still in its early stages, many articles provide little specification on the exact delivery of MI. This was a common issue earlier in the research literature on MI in counseling and psychotherapy, and differences in the quality of MI account for some variability in client outcomes (Miller & Rollnick, 2014). Psychotherapy journals now often require documentation of the fidelity of MI provided, so it has become more common to include quality assurance measures in outcome studies. It is difficult to know how well the intended MI components were delivered without this. Future studies should describe how providers were trained in MI, ensure that providers met fidelity standards before

providing coaching, and document the quality of MI that was delivered using validated quality measures.

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