# A SCOPING REVIEW ON THE BARRIERS AND FACILITATORS TO THE UTILISATION OF MOTIVATIONAL INTERVIEWING AMONG HEALTHCARE PROVIDERS

**BY**

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**A PROJECT SUBMITTED TO THE DEPARTMENT OF PHYSIOTHERAPY, SCHOOL OF BASIC MEDICAL SCIENCES, COLLEGE OF MEDICAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY.**
**IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF PHYSIOTHERAPY (B.PT) DEGREE.**

**OCTOBER, 2025.**

# CERTIFICATION

This dissertation by Akpam Mercy Sokolayam is accepted in its present form as satisfying the dissertation requirement of the degree of Bachelor of Physiotherapy of the School of Basic Medical Sciences, College of Medical Sciences, University of Benin.

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# DEDICATION

This work is dedicated first to Jehovah God, my friend, the giver of life and every good gift, my dad and my mum and the rest of my lovely family and friends who supported me and have been my strength and pillar right from the very beginning till now.

# ABSTRACT

**Background/Aim:** Motivational interviewing (MI) is increasingly recognised as a valuable communication approach in healthcare because it addresses key challenges such as patient engagement and sustained behaviour change. Although evidence supports MI as an effective strategy for promoting health behaviour change across conditions such as substance use and medication adherence, its implementation faces several barriers and facilitators that influence uptake and long-term success. This study therefore aimed to identify the barriers and facilitators to MI utilisation among healthcare providers.

**Methods:** To identify eligible studies, the following electronic databases were used for literature search: EMBASE, MEDLINE via OVID, PsycINFO, Cumulative Index to Nursing and Allied Health Literature (CINAHL), SCOPUS, and Web of Science Core Collections. Furthermore, AJOL, ProQuest thesis and dissertation, Motivational Interviewing Network of Trainers (MINT) website and Google Scholar were also searched for grey literature. The reference lists of included studies were further screened for eligible studies. The inclusion criteria comprised of studies published in English Language, involving all healthcare (physicians, pharmacists, psychologists, nurses, physiotherapists and social workers), articles addressing the barriers and facilitators to the utilisation of MI and in context of healthcare settings. Screening and data extraction were conducted independently by two reviewers, with disagreements resolved with a consensus. Results were summarized using narrative synthesis following PRISMA-Scr framework.

**Result:** A total of 19 studies including 456 participants were included in this review. Majority of the participants were nurses as 11 out of the 19 studies included nurses as participants. Out of the included studies, 14 were qualitative studies, 1 randomised controlled trial (RCT), 1 mixed methods design, 1 quantitative design, 1 practice change project and 1 descriptive study. The narrative synthesis identified several barriers and facilitators to the use of motivational interviewing (MI). The most common barrier was the lack of time required to deliver MI effectively. Other identified barriers included insufficient provider training, high workload, patient-related challenges, and practitioner-related factors. Key facilitators reported were the availability of training, practice, support, and supervision, effective communication, readiness or tension for change, alignment of MI with existing practices (goodness of fit), and a supportive work environment.

**Conclusion:** This scoping review highlights key barriers and facilitators to healthcare providers' use of MI. Barriers include time constraints, inadequate training, and heavy workloads, while facilitators include adequate training, organizational support, supervision, and positive work environments. Addressing these challenges can enhance MI's effectiveness in improving patient outcomes.

**Registration:** The review protocol was developed, registered and made publicly available through the Open Science Framework database with the protocol registration link- https://osf.io/5pqh8

**Keywords:** Motivational interviewing, barriers, facilitators, healthcare providers, scoping review

# ACKNOWLEDGEMENT

I am immensely grateful to JEHOVAH GOD for the love and strength he has given me to complete this project. I would also like to specially appreciate my supervisor, Rev Sr. Dr Henrietta Fawole for her motherly love, time, support, guidance and expertise in carrying out this project. Thank you, ma, for your advice, encouragement, corrections and for always going out of your way for me, your other supervisees and other students.

My sincere appreciation goes to Dr Olayinka Akinrolie for his support and encouragement during the course of this project, thank you sir. I would love to appreciate PT Francis Kolawole, PT Blessing Eromosele, PT Samuel Jeboda and PT Grace Olaitan for their assistance and encouragements.

I also want to thank the staff of UBTH physiotherapy department for imparting me with clinical knowledge and expertise over the years.

My unwavering love and appreciation go to my parents, Barr. and Mrs Akpam for their encouragement and for bearing the financial implications of this work and to my siblings (Trust and Goodness).

Finally, to my wonderful friends who have helped and encouraged me (Miracle, Justice, Kachi, Nathan, Ugbogbo, Imiefan, Trustee, Rachael, Vivian, Joy, Susan, Jared, Ruth and Naomi), my fellow scoping/systematic review students (Deborah, Godday and Joachim), and to all those who has contributed to this academic journey, I say a very big THANK YOU. I am immensely grateful.

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# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

Motivational interviewing (MI) can be described as a directive, client-centred counselling style for eliciting behaviour change by helping clients to explore and resolve ambivalence (Rollnick and Millner, 1995). MI is guided by four principles, which are; express empathy, develop discrepancy, roll with resistance, and support self-efficacy (Miller & Rollnick, 2013). Empathy is very crucial in MI, and it involves the use of reflective listening by the counsellor to understand the client's feelings and perspectives without judging, criticizing, or blaming (Miller & Rollnick, 2013). Creating and amplifying, from the client's perspective, a discrepancy or difference between present behaviour and his or her broader goals and values may likely move the client to make changes when he/she sees a behaviour as conflicting with important personal goals (Miller & Rollnick, 2013). A client may sometimes argue with the changes advocated for by the counsellor. In such cases, the third principle, roll with resistance, is applied. This principle implies that resistance should not be directly opposed, but rather rolled or flowed with (Miller & Rollnick, 2013). In applying this principle, reluctance and ambivalence are not opposed but are acknowledged to be natural and understandable (Miller & Rollnick, 2013).

Self-efficacy is a person's confidence in his or her ability to complete and succeed at a specific task. The overall goal of MI is to increase the client's confidence in his or her ability to overcome obstacles and succeed in change (Miller and Rollnick, 2002). MI is a collaborative, goal-focused method of counselling that requires four processes which

include engaging, focusing, evoking, and planning (Miller & Rollnick, 2002). Engaging is about forming a trusting and compassionate relationship using core skills known as open ended questions, affirmations, reflective listening and summaries (OARS), which help in developing rapport and a safer environment where discussions about change can take place (Emmons & Rollnick, 2001). Focusing involves working together to determine a specific direction, target behaviour, or goal while ensuring the conversation is client driven and value driven (Miller & Rollnick, 2013). After a focus has been established, evoking accentuates the client's motivations for change, concentrating on "change talk" and exploring ambivalence without forcefully providing solutions. This is the essence of MI since motivation formulated by the client has a higher probability of bringing about long-term change (Miller & Rollnick, 2002). Planning aids the client in converting motivation to action by guiding the client towards developing a plan which is personally meaningful and achievable to foster autonomy and self-efficacy. In every phase, MI spirit is upheld by the practitioner; empathy, collaboration, and respect for autonomy, which has been proven to reduce resistance and improve outcomes across healthcare and behavioural settings (Emmons & Rollnick, 2001).

MI has been successfully implemented to facilitate health behavioural changes. For example, in the context of substance use, MI has been shown to be effective in decreasing alcohol and drug use through gentle conversations that enable people to resolve their ambivalence and strengthen their commitment toward change (Lundahl et al., 2010). With regard to physical activities, MI has been associated with some increase in the activity levels of adults (Akinrolie et al., 2020; Morton et al., 2015). In the same manner, MI enhances adherence to medications by allowing patients to state their reasons for nonadherence, address their concerns, and design personal plans for regular use, which leads to better controlled outcomes in chronic disease management (Palacio et al., 2016).

Furthermore, a review of meta-analysis by Lundahl & Burke (2009) concluded that MI was significantly more effective than no treatment and comparable in effectiveness to other interventions across various behaviour-change outcomes.

As a result of its effectiveness, healthcare practitioners have started utilizing MI to advance patients' behavior change because it effectively deals with motivation, ambivalence, and resistance to change (Emmons & Rollnick, 2001; McKenzie et al., 2015). For instance, a systematic review by McKenzie et al. (2015) showed that MI shows a small-to-medium, statistically significant effect on lifestyle behaviour change across various single diseases, suggesting its potential value. With the increasing prevalence of chronic conditions including diabetes, hypertension, and substance use disorders, there is a greater emphasis placed on the need to move away from education-based approaches towards ones that actively involve patients in self-management of their health (Lundahl et al., 2013). MI facilitates this by drawing out a patient's own reasons for wanting to make change and guiding them to resolve ambivalence through supportive dialogue (Miller & Rollnick, 2002). Brief Motivational Interviewing (BMI), a condensed version of MI designed for time-limited clinical settings, has emerged as a practical and efficient approach to integrating patient-centred conversations into routine care (Field et al., 2005). MI and its brief form help patients explore their own reasons for change and resolve ambivalence through empathetic, supportive dialogue (Vance, 2010).

Despite the growing evidence on the use of MI in facilitating positive behavioural change in healthcare settings such as in the enhancement of patient-healthcare worker communication, the patient's concordance and compliance (Szczekała et al., 2018), its implementation is influenced by various facilitators and barriers that affect both its effectiveness and long-term sustainability. There are various factors that facilitate the

implementing of MI which include but not limited to are: awareness and understanding of MI among healthcare professionals (Temedda et al., 2024), comprehensive training and ongoing support (Meinzer et al., 2021), organizational support (Boom et al., 2022), multidisciplinary collaboration and adaptability to patient needs (Temedda et al., 2024). Additionally, various factors have been identified as potential barriers to implementing MI in different settings. For instance, studies have shown that personal and patient related factors such as client resistance (Boom et al., 2022), psychiatric disorders treatment (Bell & Roomaney, 2020), language barrier (Temedda et al., 2024) and cognitive and sensory disorders (Temedda et al., 2024). Other barriers that have been identified include time constraint (Emmons & Rollnick, 2001; Temedda et al., 2024), insufficient training (Meinzer et al., 2021) and organizational challenges such as lack of managerial support and high staff turnover (Hatch et al., 2021).

## 1.2 Statement of the Problem

In the healthcare settings, the adoption of MI is gaining recognition as a valuable communication approach in healthcare settings because it directly addresses one of the most critical challenges in modern healthcare such as patient engagement and sustained behaviour change (McKenzie et al., 2015; Temedda et al., 2024). MI offers a more effective alternative by fostering a collaborative, empathetic, and patient-centred dialogue that helps individuals explore their ambivalence and build internal motivation for change (Miller & Rollnick, 2013). Despite the growing body of evidence supporting MI as an effective intervention for promoting health behaviour change across a wide range of conditions such substance use, medication adherence, and chronic disease self-management, the implementation of MI encounter numerous facilitators and barriers that affect uptake, and long-term success of MI interventions (McKenzie et al., 2015; Boom et

al., 2022; Temedda et al., 2024). The barriers and facilitators identified by some of these studies are often limited to particular populations, health conditions, or clinical disciplines. As a result, there is currently no comprehensive synthesis that systematically maps the full range of facilitators and barriers across diverse healthcare contexts. This gap limits the ability of stakeholders such as clinicians, administrators, and policymakers to develop evidence-informed strategies that optimize the integration of MI into routine care. Therefore, a scoping review is needed to consolidate existing research, identify knowledge gaps, and provide a structured overview of the potential facilitators and barriers of MI in healthcare.

## 1.3 Research Questions.

i. What are the barriers to the utilisation of motivational interviewing among healthcare providers?

ii. What are the facilitators to the utilisation of motivational interviewing among healthcare providers?

## 1.4 Aim of the Study

To identify the barriers and facilitators to the utilisation of motivational interviewing among health care providers.

### 1.4.1 Specific Objectives

i. To identify barriers to the utilisation of motivational interviewing among healthcare providers.

ii. To identify facilitators to the utilisation of motivational interviewing among healthcare providers.

## 1.5 Significance of the Study

The significance of this review would include the following:

i. **To Researchers:** This study could help researchers access information on the barriers and facilitators to the use of motivational interviewing among healthcare providers. Further, the findings of this study could be useful for future research.

ii. **For Health care providers:** This study aims to provide information on how to improve effective interventions that promote the utilisation of MI in the healthcare setting. This can promote a patient-centred approach and strengthen therapeutic relationship.

iii. **To Physiotherapists:** These identified barriers and facilitators to MI could be crucial to physiotherapists particularly in recognizing these obstacles or enablers easily - allowing physiotherapists to proactively develop strategies to overcome them such as enhancing patient motivation for exercise adherence, and pain management.

iv. **For Policymakers:** The findings can inform policymakers about the barriers and facilitators of motivational interviewing. This data can be crucial in mapping important barriers and looking into how to mitigate these barriers. Whilst policy makers may enhance improved use of facilitators of MI in health care settings.

## 1.6 Scope of the Study (Delimitation)

This study was delimited to:

i. Studies from selected databases and English language studies.
ii. Studies that include facilitators and barriers of motivational interviewing.
iii. Studies that involve healthcare providers.

## 1.7 Definition of terms

i. **Barriers:** an insurmountable obstacle that interferes with the satisfaction of a need. The barrier may be environmental or within an individual (Oxford dictionary, 2006).

ii. **Facilitators:** a person or thing that makes an action or process easy or easier.

iii. **Utilisation:** the action of making practical and effective use of something.

iv. **Motivational Interviewing:** Motivational interviewing is a collaborative conversation style for strengthening a person's own motivation and commitment to change (Miller and Rollnick, 2013).

v. Healthcare providers: These includes all healthcare providers including social, medical and healthcare providers. These individuals are licensed to provide health care diagnosis and treatment services.

## 1.7 List of abbreviations

MI: Motivational Interviewing

WHO: World Health Organization

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

Motivational interviewing (MI) is a counselling approach developed in part by clinical psychologists William R. Miller and Stephen Rollnick. It is a directive, client-centred counselling style for eliciting behaviour change by helping clients to explore and resolve ambivalence. When compared with non-directive counselling, it is more focused and goal-directed.

Motivational interviewing has been shown to encourage a change in behaviour in a wide range of healthcare settings (Rollnick et al., 2010). MI offers an evidence-based therapeutic style for delivering other treatments more effectively. The most common use of MI now is indeed in combination with other treatment methods such as cognitive behaviour therapy (CBT) (Miller, 2023).

## 2.2 Motivational Interviewing

### 2.2.1 Definition of motivational interviewing

Miller & Rollnick (2013) defined motivational interviewing as a collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion (Miller & Rollnick, 2013). It is a conversation style based on collaboration for strengthening a person's own motivation and commitment to change

(Miller & Rollnick, 2013). MI is a person-centred counselling style for addressing the common problem of ambivalence about change (Miller & Rollnick, 2013).

### 2.2.2 The Spirit of motivational interviewing- PACE

The spirit of MI is the perspective with which one practices MI. Without this underlying spirit, MI becomes like a magic trick, a way of trying to manipulate people into doing what they don't want to do: to skilfully steers the client into the right choice. In short, it becomes just another version of the righting reflex, a battle of wits in which the goal is to outsmart your rival (Miller & Rollnick, 2013).

The spirit of MI (Miller & Rollnick, 2013) comprises the following elements:

1. Partnership refers to an active collaboration between the client and the professional. A client is more willing to express concerns when you are empathetic and show genuine curiosity about the client's perspective (Miller & Rollnick, 2013). In this partnership, you are influential, but the client drives the conversation (Miller & Rollnick, 2013).

2. Acceptance refers to respect for and approval of the client. This doesn't mean agreeing with everything the client says but is a demonstration of ones intention to understand the client's point of view and concerns (Miller & Rollnick, 2013). In the context of MI, there are four components of acceptance: Absolute worth, accurate empathy, autonomy support and affirmation (Miller & Rollnick, 2013).

3. Compassion: This refers to the active promotion of the client's welfare and prioritization of client needs (Miller & Rollnick, 2013).

4. Evocation: It reflects on and enhances the motivations, values, strengths, and resources the client already has (Miller & Rollnick, 2013).

These four elements can be remembered by using the acronym PACE which stands for Patnership, Acceptance, Compassion and Evocation (Stinson and Clark, 2017). The counselling approach you would use should emphasize one or more of these elements.

### 2.2.3 Core Skills of motivational interviewing- OARS

The core counselling skills of MI, use the acronym OARS (Miller and Rollnick, 2013): Asking **O**pen question, **A**ffirming, **R**eflective listening and **S**ummarizing. These core skills are consistent with the principles of person-centred counselling and can be used throughout your work with clients (Miller & Rollnick, 2013). If you use these skills, you will more likely have greater success in engaging clients and less incidence of conflict within the counsellor-client relationship. These core skills are described below.

**Asking Open Questions**

An open question is one that encourages a person to think and reflect a bit before responding (Miller & Rollnick, 2013). It provides plenty of time for how to answer. An open question is like an open door. You do not know in advance where the person will go with it. For example: What is your aim of coming here today?, How has this problem affected your daily activities?, How do you hope to feel after treatment? Where do you think this treatment path that you're on is leading you?

The opposite of an open question is, of course, a closed question, which typically calls for a short answer and limits the person's options for responding. Closed questions collect a specific bit of information: What is your name?, How long have you been feeling this way?, Do you drink or smoke?

Open questions invite room for more discussion on a topic thereby focusing attention in a particular direction (Miller & Rollnick, 2013). The more questions you ask, the more you limit the client's exploration. The more reflections you offer, the more you invite the client to consider and explore. As a style that is both client-centred and directional, the use of open questions in MI is vital (Miller & Rollnick, 2013).

**Affirming**

To affirm is to observe and appreciate what is good, including one's intrinsic worth as a fellow human being. To affirm means to support and encourage (Miller and Rollnick, 2013). Not all affirmation must come from the healthcare provider, nor is the healthcare provider always the most effective source of affirmation. Clients can be encouraged to highlight their own qualities, past accomplishments, and excellent attempts; such self-affirmation has been demonstrated to promote openness (Critcher et al., 2010). People's willingness to express self-affirmation varies according to generation, culture, mood, and environment (Miller and Rollnick, 2013).

So, how do you go about affirming? First and foremost, affirming focusses on your client. Affirmation and praise are not the same. To praise is to create a blockage (Miller and Rollnick, 2013), as it indicates, at least tacitly, that the praiser is in a superior position as the arbitrator of praise and criticism. In general, avoid affirmations that begin with the word "I," as they focus on you rather than the customer. "I am proud of you," for example, may be well-intended and even well-received, but it has obvious parental

connotations. Like good reflecting, good affirming usually revolves around the word "you." (Miller, Rollnick, 2013).

Affirmations focus on something positive about the person. They entail observing, recognising, and acknowledging the positive (Miller and Rollnick, 2013). An encouraging comment can be about anything specific, such as intentions or actions: "You really tried hard this week", "Your intention was good even though it didn't turn out as you would like", "You did a really good job of keeping records this week", "Thanks for making it in time for your appointment."

Another way of affirming is to comment on what you observe to be the person's positive traits or skills. These are framed as personal attributes, of which more specific positive actions are used as examples: "You got really discouraged this week and still you came back. You're persistent", "Listening to all you've been through, I'm not sure if I would have been able to do as well as you did. You're a real survivor (Miller and Rollnick, 2013).

Affirmations may not even be so specific, but can reflect a broader and more genuine worth of the person: "Welcome back! It's good to see you", "You're are exceptional".

**Reflective Listening**

Good listening is vital to MI. The particular skill of reflective listening is one to learn first because it is so basic to all four processes of MI (Miller & Rollnick, 2013). It takes a fair amount of practice to become skilful in this way of listening so that reflections come more naturally and easily. Once you reach that point of comfort with reflective listening it becomes possible to use it in guiding (Miller and Rollnick, 2013). Listening generally may involve just keeping quiet (at least for a little while) and hearing what someone has to say (Miller & Rollnick, 2013). The important element in reflective listening, however,

is what the interviewer says in response to what the speaker offers (Miller & Rollnick, 2013). That is why Thomas Gordon (1970) called it active listening. A good listener normally keeps eye contact with the person who is speaking. For the speaker, in contrast, a normal pattern is to look at the listener periodically but also look away while talking. There are large cultural differences in this. In some cultures is it regarded as disrespectful for someone to make much eye contact while speaking to another person. Nevertheless, the listener's eyes should be readily available for contact, not looking around the room or absentmindedly past the speaker (Miller and Rollnick, 2013).

Reflective listening encourages cooperation and a safe and open environment that is conducive to assess issues and improve the client's reasons for change (Romano and Peters, 2016). It is both an expression of empathy and a way to selectively reinforce change talk (Romano and Peters, 2016). The key to expressing accurate empathy through reflective listening is your ability to deviate from being an expert who gives advice to being an individual supporting the client's autonomy and expertise in making decisions about changing substance use behaviours (Moyers, 2014).

Facial expressions also convey information about comprehension and attention. A "poker face," or one that remains constant when confronted with new information, is perceived by some as impartial or "professional." On the other hand, a poker face does not provide the speaker with much emotional support and encourages projection, which frequently takes the form of thinking that the listener is evaluating or disapproving. It may make the speaker ponder and even worry about the listener's thoughts (Miller & Rollnick, 2013). People frequently mimic each other's emotional expressions during casual conversations (Miller and Rollnick, 2013). Sadness expressed verbally would probably be mirrored nonverbally by the facial expression of a good listener (Miller & Rollnick, 2013). The same is true for mirroring the client's emotion signals and understanding through

expressions of surprise, fear, or joy. A good listener's facial expression would probably mirror the emotion in a speaker's words (Miller and Rollnick, 2013).

**Summarizing**

A summary integrates information that the client has offered and can be collecting, linking, or transitional (Miller and Rollnick, 2013). Summaries also help clients to hold and meditate on the various experiences they have expressed. They not only hear themselves describing their experiences, but they also hear you reflect what they have said in a way that encourages them to continue (Miller & Rollnick, 2013). Then they may hear their own material yet again as you pull it together in more concise summaries (Miller and Rollnick, 2013).

At the end of a summary, remember to ask the client whether you left anything out. This opportunity lets the client correct or add more to the summary and often leads to further discussion. Summarizing encourages the client reflect on things he had mentioned prior (Miller & Rollnick, 2013). Summaries reinforce key statements of movement toward change. Clients hear change talk once when they make a statement, twice when the counsellor reflects it, and again when the counsellor summarizes the discussion (Miller & Rollnick, 2013).

## 2.2.4 Four processes of motivational interviewing

**1. Engaging:** If you and the client don't have a solid working relationship, certain counselling methods or approaches won't function. Engaging, according to Miller and Rollnick (2013), is the process by which two people build a beneficial connection and a cooperative partnership.

The system in which the client and practitioner operate, the clinician's emotional state, and the client's circumstances and mental state when they first enter the room are some examples of factors that can either help or hinder the talk. In many service situations, forming a functioning partnership is crucial. Though occasionally the provider's ratings do not, clients' assessments of the calibre of their working relationship with a provider tend to predict outcome and retention (Crits-Christoph et al., 2011). Research supports the link between the ability to develop this kind of helping relationship and positive treatment outcomes such as reduced drinking (Moyers et al., 2016; Romano & Peters, 2016).

**2. Focusing:** The process of developing and maintaining a defined direction in the discussion of change is known as "focussing" (Miller and Rollnick, 2013). Engaging with someone causes them to focus on their specific goal, or the topic they came to discuss. Additionally, the provider might have agendas, some of which might coincide with the client's and others that might not. For instance, someone who wants at least symptomatic alleviation from an upper respiratory infection and shortness of breath may seek medical attention. The provider considers offering a change, keeping in mind that the patient smokes. What are they going to discuss? The provider may bring up smoking, but they will undoubtedly address the presenting problems. After you and the client have decided on a broad course of action, concentrate on a particular behaviour that the client is prepared to talk about. A particular behaviour change aim is linked to change talk (Miller and Rollnick, 2010).

**3. Evoking:** Engaging causes one to concentrate on the specific agenda—what the person came to discuss. At the core of MI has always been evoking, which entails eliciting the client's own reasons for wanting to change (Miller & Rollnick, 2013). It happens when you focus on a specific change and use the client's thoughts and emotions about why and

how they might implement it (Miller and Rollnick, 2013). However, this expert directing approach typically fails when the objective is personal change. The process of personal change necessitates the active involvement of the individual (Miller & Rollnick, 2013). Although a cast may be worn for seven weeks or an antibiotic taken for seven days, personal transformation is a continuous process. Evoking, to put it simply, is having the person make the case for change (Miller and Rollnick, 2013).

The motivational interviewer's job is to elicit change talk and use reflective listening to selectively reinforce it. Positive substance use outcome and client behaviour change are correlated with the amount of change talk compared to sustain talk (Houck et al., 2018; Lindqvist et al., 2017; Magill et al., 2014).

A client move from preparing to mobilizing for change, ask key questions (Miller and Rollnick, 2013): What do you think you will do about your drinking? After reviewing the situation, what's the next step for you? What do you want to do about your drug use? What can you do about your smoking? Where do you go from here? What you might do next?

When the client responds with change talk (e.g., "I intend to stop using heroin"), you can move forward to the planning process. If the client responds with sustain talk (e.g., "It would be too hard for me to quit using heroin right now"), you should go back to the evoking process. Remember that change is not a linear process for most people.

**4. Planning:** Planning includes both developing a commitment to change and creating a specific plan (Miller & Rollnick, 2013). Planning is not something done once and then forgotten. It is an ongoing process that, like engaging, focussing, and evoking, may require revisiting (Miller and Rollnick, 2013). One study discovered that counsellor efforts to elicit client commitment to change alcohol use are associated with decreased

alcohol consumption and increased abstinence in outpatient treatment (Magill, Stout, & Apodoaca, 2013). Planning involves asking questions such as: What is a reasonable next step towards change? What would help this person move forward? (Miller and Rollnick, 2013)

## 2.3 Theoretical Frameworks Underpinning MI Implementations

The theoretical foundations of MI draw upon established behavioural change models and implementation science frameworks that collectively inform both the individual mechanisms of action and the systemic strategies for embedding MI within healthcare practice.

### 2.3.1 Behavioural Change Theories

#### 1. Transtheoretical Model (TTM)

According to the Transtheoretical Model, change in behaviour occurs in five stages which are precontemplation, contemplation, preparation, action, and maintenance (Prochaska & DiClemente, 1983). MI works especially well in the precontemplation and contemplation phases, when clients might be hesitant or conflicted about change. MI promotes progression through the stages by fostering awareness and self-motivation via reflective listening, affirmations, and encouraging change discourse (Rollnick et al., 2008).

#### 2. Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (Ajzen, 1991), states that, behavioural intentions – which are impacted by attitudes toward the behaviour, subjective norms, and perceived behavioural control – are what ultimately determine behaviour. By assisting people in

defining their own values and beliefs (attitudes), investigating social pressures and supports (subjective norms), and boosting their self-esteem and ability to change (perceived behavioural control), MI supports this theory and increases the likelihood of behavioural intention and action (Hardcastle et al., 2016).

**3. Social Cognitive Theory (SCT)**

The significance of self-efficacy, observational learning, and reciprocal determinism in behaviour modification is emphasized by Bandura's Social Cognitive Theory (Bandura, 1986). MI promotes self-efficacy by validating clients' strengths and prior accomplishments, which aligns with SCT principles. Internal motivation and autonomy, which are essential components of SCT's model of sustained behavioural change, are encouraged by MI's collaborative nature.

## 2.3.2 Implementation Science Models

**Consolidated Framework for Implementation Research (CFIR)**

A thorough and organized method for introducing evidence-based interventions, like MI, into healthcare settings is offered by the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al., 2009). Five major domains are identified by CFIR:

1. Intervention Characteristics: MI's flexibility and proven efficacy enhance its potential for implementation.

2. External Environment: Uptake may be impacted by elements like patient requirements, regulations, and financial resources.

3. Inner Setting: Infrastructure, leadership involvement, and organizational culture are essential for integrating MI into daily operations.

4. Individual Characteristics: MI fidelity and sustainability are greatly impacted by the attitudes, abilities, and self-efficacy of healthcare professionals.

5. Implementation Process: Planning, training, stakeholder engagement, and ongoing assessment are all necessary for successful implementation.

### 2.3.3 Relevance of These Theories for the Use of MI in Healthcare Settings

Both behavioural and implementation frameworks are advantageous for the integration of MI in healthcare:

The psychological mechanisms underlying patient motivation and decision-making are clarified at the individual level by theories like TTM, TPB, and SCT. According to Resnicow et al. (2002), MI can be customized based on these theories to improve patient participation in behaviours like quitting smoking, taking medications as prescribed, changing one's diet, and exercising.

Frameworks such as CFIR guarantee that MI is backed by provider competencies, institutional structures, and organizational preparedness at the system level, which promotes its uptake and long-term viability (Waltz et al., 2015).

## 2.4 Current Use of Motivational Interviewing (MI) Among Healthcare Providers or in Healthcare Settings

### 2.4.1 Extent of Use and Settings of MI

MI was initially developed by Miller and Rollnick (1991), for the treatment of alcohol addiction (Miller and Rollnick, 2013). It is now a widely implemented technique in various healthcare settings such as; primary care, chronic disease management, mental

health, and public health interventions (Hettema et al., 2005). In smoking cessation, physical activity, eating behaviour, and alcohol use, MI is normally used in primary care to incite change of behaviour in patients. A systematic review by VanBuskirk and Wetherell (2014) demonstrated the effectiveness of MI in primary care. It found that about half of MI interventions in primary care lead to positive behavioural outcomes.

MI is effective in managing chronic diseases. It helps improve self-care and treatment adherence for conditions like diabetes and hypertension (Palacio et al., 2016). In mental health settings, MI improves treatment engagement, particularly among people with comorbid depression and anxiety (Lundahl et al., 2013). MI is also used to treat acute behaviour-related health risks in emergency rooms and hospitals. For instance, a recent study indicated that MI helped hospitalized older adults better adhere to their medication regimens (Turrini et al., 2024).

### 2.4.2 Healthcare Professionals Using MI

MI is not exclusive to psychologists or counsellors alone. It includes all healthcare providers such as social, medical and healthcare professionals in diverse environments. Doctors and family doctors often use brief MI during patient visits to get them to change their habits (Rollnick et al., 2005). Nurses, especially those working in primary care and home healthcare, use MI to help people change their behaviour and stick to their medications (Brobeck et al., 2011). Clinical psychologists and therapists incorporate motivational interviewing (MI) into therapeutic interventions to assist clients in resolving ambivalence and augmenting intrinsic motivation (Miller and Rollnick, 2013). Social workers and case managers utilize Motivational Interviewing (MI) to empower clients, particularly in care coordination roles (Soderlund et al., 2011). Pharmacists utilize MI techniques to enhance patients' comprehension of their treatments and adherence to

medication regimens (Palacio et al., 2016). Dietitians and nutritionists also use MI to help people make long-lasting changes to their diets, especially when it comes to managing obesity and long-term health problems (Lundahl et al., 2013). Physiotherapists and rehabilitation specialists utilize motivational interviewing (MI) to promote patient involvement in rehabilitation programs (Drevenhorn et al., 2007).

### 2.4.3 Evidence of Effectiveness of MI Implementation by Healthcare Providers

There is a lot of empirical evidence from different clinical fields and conditions that MI works well.

A pivotal meta-analysis by Lundahl et al. (2013) evaluated 48 studies with 9,618 participants, determining that motivational interviewing (MI) was markedly more effective than conventional advice-giving in various health behaviours and outcomes, such as decreased alcohol and tobacco consumption, weight loss, and enhanced oral hygiene.

In chronic disease management, MI has been shown to improve glycaemic control in individuals with type 2 diabetes and lower blood pressure in those with hypertension. Palacio et al. (2016) did a meta-analysis and found that MI helped people stick to their medications and had a moderate effect size, especially when done in person.

MI has demonstrated efficacy in enhancing engagement and alleviating symptoms among patients with depression and schizophrenia in mental health contexts (Hettema et al., 2005). Östlund et al. (2015) also found that MI helped healthcare workers talk to obese pregnant women more clearly in obstetric care. Nurses who get MI training also say that their communication skills have gotten better and they feel more sure of themselves when

dealing with patients. For example, Mahrer et al. (2015) found that home health nurses' ability to communicate improved by 25% after training.

### 2.4.4 Training Requirements for Healthcare Providers Using MI

MI is a sophisticated clinical technique that, in order to be used successfully, needs regular development and organized training. Workshops on the fundamental concepts of MI, such as autonomy, evocation, and collaboration, as well as fundamental methods like affirmations, open-ended questions, reflective listening, and summarizing (OARS), are usually part of initial MI training (Miller & Rollnick, 2013). Schwalbe et al. (2014) state that in order to become proficient, these skills must be practiced frequently while receiving feedback. It takes fidelity monitoring, continual coaching, and supervision to maintain competence in MI. In clinical encounters, adherence to MI principles is evaluated using instruments such as the Motivational Interviewing Treatment Integrity (MITI) coding system (Moyers et al., 2010). The significance of integrating MI into organizational culture through staff support, workflow integration, and ongoing education was underlined in a 2019 study by Francis et al.

## 2.5 Individual-level barriers, organisational-level barriers, systemic barriers

**Individual-Level Barriers to Motivational Interviewing**

Healthcare providers may face several individual-level barriers when using motivational interviewing (MI), including:

1. Competence/Lack of training: This refers to insufficient knowledge and skills in MI techniques. Lack of a general understanding of MI can result in less effective therapy sessions (Hatch et al., 2012).
2. Time constraints: MI can be difficult to implement with adequate fidelity, since learning MI requires time and commitment from busy providers with competing priorities (Budhwani and Naar, 2022). Healthcare staff had large caseloads, meetings, and other job requirements, and these other time constraints took precedence over implementing MI in their sessions. Clinics that were not fully staffed would require current employees to take on multiple jobs just to maintain viability, and therefore, MI implementation could not be prioritized (Hatch et al., 2012).
3. Lack of confidence: Some clinicians lack confidence their ability to deliver MI with fidelity and therefore avoided using MI or participating in the MI feedback process all together. At times, this can occur among staff who displayed sufficient competency in MI but did not realize their skill level (Hatch et al., 2012).
4. Resistance to change: This includes healthcare providers' reluctance to adopt new communication styles. Certain staff were unwilling to use MI and/or engage in the MI because it was new and different than their regular routines, a sentiment noticed especially if a staff member already held general closed-mindedness toward any culture change. It can also be noticed among seasoned counsellors who had already developed a pattern of clinical practice over time (Hatch et al., 2012).

5. Lack of staff buy-in to MI. This cam happen when staff discredit the value of and evidence behind MI and therefore do not accept efforts to implement MI. Some staff can lack interest in adopting MI because they do not understand how it could help their clients. Support from upper management and the provision of incentives sometimes helped mitigate these struggles (Hatch et al., 2012).

**Organizational/Management-level barriers**

1. Leaders' time. Top executives in the system felt that they were unable to dedicate the time, focus, and energy they felt necessary to adequately follow up on the initial MI training (Hatch et al., 2012). Although they expressed a desire to provide education and supervision to their staff, leaders were diverted by their regular day-to-day workload, as well as abrupt clinic disruptions such as staff turnover and being short staffed, that required them to take on additional work (Hatch et al., 2012).
2. Staffing. Staffing concerns occurred at all levels in the healthcare system. There can be shortage of staff due to a cycle of staff turnover (Hatch et al., 2012). Staff turnover required leaders to consider how newly hired staff differed from those who had left. Some new staff might be less confident, less trained, and hold different attitudes to MI (Hatch et al., 2012).
3. External constraints. Some healthcare systems are funded by external contracts that demand specific documentation and clinical service provision to maintain funding. In extreme cases, entire clinics closed when they were unable to keep up with their external contracts and get renewed funding so to begin MI would be difficult Support from other levels (Hatch et al., 2012). Although leaders saw the value in adapting a new EBP model, other members of the leadership team, such as executives and clinical supervisors, offered limited support and/or resisted these strategic efforts (Hatch et al., 2012).

4. Support from other levels. Although the top leaders may see the value in adapting a new approach, other members of the leadership team, such as executives and clinical supervisors may offer limited support and/or are resistant towards these strategic efforts (Hatch et al., 2012).

**Systemic Barriers**

These are attitudes, policies, or systems that result in individuals from certain population groups receiving unequal access to or being excluded from other participation in employment, services or programs (e.g., through discrimination, racism, sexism, homophobia, transphobia, ableism, etc.) (Hatch et al., 2012). They are systemic in nature, meaning they result from individual, societal or institutional practices, policies, traditions and/or values. They include:

1. Laws and policies: Laws and regulations present can create barriers to access or use of MI (Hatch et al., 2012). Some healthcare systems are funded by external contracts that demand specific documentation and clinical service provision to maintain funding (Hatch et al., 2012). Due to this policy. The use of MI can be hard.
2. Cultural norms: Unwritten rules or expectations can influence behaviour and create barriers (Hatch et al., 2012).
3. Institutional practices: Some standard practices or procedures foster inequality
4. Resources allocation: The unequal distribution of resources (e.g., funding, staffing) can create unequal access or opportunities (Hatch et al., 2012).

## 2.6 Facilitators to the utilization of motivational interviewing

### 2.6.1 Training capacity, organisations supports, interprofessional collaborations

**Training Capacity:** Budhwani and Naar (2022) stated that increased training is one of the best practices for implementing MI and increase orientation to MI.

**Organization's Support:** The provision of resources needed for MI by the organization will facilitate the use of MI. In a study, MI fidelity was evaluated through audio-recordings of MI sessions and questionnaires to sick-listed participants (Foldal, 2021). This would have been provided by the organization and it fostered the utilisation of MI.

**Interprofessional Collaboration:** The awareness about MI to healthcare providers is a facilitator to its use (Temedd, 2024). Once this awareness has been established, various provides can integrate their MI skills to help patients and clients.

## 2.7 Benefits of motivational interviewing in the healthcare system

The benefits of MI in the healthcare system can not be over emphasized. The application of MI contributes to:

1. The enhancement of patient-healthcare worker communication, the patient's concordance and compliance (Szczekała et al., 2018).
2. Improved treatment due to greater patient awareness and obedience which leads to more conscientious responsibility for treatment and health, which in turn, produces better therapy outcomes that serve as confirmation of the merit of the therapy prescribed (Szczekała et al., 2018).
3. The health professionals' greater success, satisfaction, self-confidence and a sense of self-efficacy (Szczekała et al., 2018).

4. Being a major approach to supporting lifestyle behaviour change (McKenzie et al., 2015).
5. Provide a cost-effective and impactful means of enhancing patient adherence to medications (Minkin et al.,2014)

## 2.8 Health Care Providers and health care setting

**Healthcare Providers:** Healthcare providers/professionals maintain health in humans through the application of the principles and procedures of evidence-based medicine and caring. Health professionals study, diagnose, treat and prevent human illness, injury and other physical and mental impairments in accordance with the needs of the populations they serve (World Health Organization [WHO], 2010). They advise on or apply preventive and curative measures, and promote health with the ultimate goal of meeting the health needs and expectations of individuals and populations, and improving population health outcomes (WHO, 2006). They also conduct research and improve or develop concepts, theories and operational methods to advance evidence-based health care (Frenk et al., 2010).

**Healthcare Setting:** Health care setting means any location where health care is provided by a licensed health care professional. The term healthcare setting represents a broad array of services and places where healthcare occurs, including acute care hospitals, urgent care centres, rehabilitation centres, nursing homes and other long-term care facilities, specialized outpatient services (e.g., haemodialysis, dentistry, podiatry, chemotherapy, endoscopy, and pain management clinics), and outpatient surgery centres (Centres for Disease Control and Prevention [CDC], 2020).

## 2.9 Empirical Literature Review

The empirical literature review focused on looking for scoping or systematic reviews on the barriers and facilitators in the use of MI in other professions or disciplines. Google scholar was used for the search and the following keywords were used: barriers OR facilitators AND motivational interview AND review.

Only the first ten (10) pages were screened and no scoping or systematic review was found matching the search criteria (Stansfield et al., 2016; Briscoe et al., 2023).

## 2.10 Gaps identified from the literature review

The effectiveness of motivational interviewing (MI) in promoting behaviour change across various health conditions and populations is well-documented, there remains limited synthesis of evidence on the practical and contextual factors that influence its successful implementation in healthcare settings. Existing literature often focuses on the outcomes of MI interventions rather than systematically exploring the challenges healthcare professionals face in adopting and sustaining MI practices. Moreover, studies reporting on implementation barriers and facilitators are often dispersed across disciplines, populations, and settings, making it difficult to draw comprehensive insights. To date, no scoping review has comprehensively mapped the range of barriers and enablers to MI use across diverse healthcare environments. Such a review is essential to inform training, policy development, and implementation strategies aimed at integrating MI more effectively into routine healthcare practice.

# CHAPTER THREE

# METHODOLOGY

## 3.1 Protocol and Registration

This scoping review was reported using the Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for Scoping Reviews (PRISMA - ScR) (Page & Moher, 2017). Also, the methodological frameworks by Levac and colleagues, and Arksey and O'Malley were used for guiding this scoping review (Levac et al., 2010; Arksey & O'Malley, 2005). The framework included the following stages: 1. identifying research questions; 2. identifying relevant studies; 3. selecting studies; 4. charting the data, collating and summarizing; 5. Reporting the results. The review protocol was then developed, registered and made publicly available through the Open Science Framework database (https://osf.io/5pqh8).

## 3.2 Identify Relevant Studies

The PCC framework (Population, Concept and Context) was utilised in this scoping review to organize the inclusion and exclusion criteria for study selection, ensuring that the process is led by the research question (Peters *et al.*, 2020).

**Population**: All healthcare providers including social, medical and healthcare providers such as doctors, psychologists, nurses, pharmacists, physiotherapists and occupational therapists and social workers were considered.

**Concept**: Barriers and facilitators to the utilisation of motivational interviewing

**Context**: Healthcare settings such as clinics and hospitals

### 3.2.1 Exclusion Criteria

Studies were excluded if they do not involve healthcare professionals and did not include MI in the study. Studies not published in English, and protocol-only studies without published results were also excluded.

## 3.3 Search Strategy

To identify eligible studies, the following electronic databases were used for the search from inception until 16th July 2025: EMBASE, MEDLINE via OVID, PsycINFO, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and SCOPUS.The following keywords were used for the search: "Facilitators" OR "Barriers" OR "Enablers" AND (“motivational interviewing” OR “MI” OR "Motivational counselling") AND (“Healthcare Providers” OR “Healthcare workers” OR “Healthcare professionals” OR "Doctors" OR "Clinical psychologist" OR "Physiotherapists" OR "Nurses" OR "Social workers" OR "Occupational therapists"). The reference lists of all included studies werefurther searched for additional relevant studies. Grey literature was also searched using Google scholar (5th August 2025), ProQuest thesis and dissertation (30th July 2025), African Journals Online (AJOL) (30th July 2025) and motivational interviewing website (MINT website) (8th August 2025).

## 3.4 Study Management and Selection

Citations were uploaded to Covidence for de-duplication and screening. Two articles were independently pilot tested by two authors Mercy Sokolayam Akpam (MSA) and Blessing Eromosele (BE), a graduate of physiotherapy department, University of Benin. This was to ensure familiarisation and consistency with process of systematic review screening. Following on from this, the rest of the titles and abstracts screening were

completed by MSA and BE. Similarly, full text screening was conducted by MSA and BE. In cases of disagreements, conflicts were resolved with consultation with either Reverend Sister (Dr.) Henrietta Fawole (HF), my supervisor and a lecturer in physiotherapy or Dr Olayinka Akinrolie (OA), a physiotherapist and specialist in MI methodology.

## 3.5 Data Extraction and Charting process

Two authors (MSA and BE) independently extracted the relevant information that aligned with the research questions using a pre-piloted data extraction form : Name(s) of author, year of publication, study design, study characteristics and study population, barriers, facilitators, and healthcare provider. Discrepancies in the data extraction were resolved via discussions between the two authors (MSA and BE) and if a consensus cannot be reached, either Reverend Sister (Dr.) Henrietta Fawole (HF), or Dr. Olayinka Akinrolie (OA) were consulted.

## 3.6 Collating, Summarizing and Reporting Results

Characteristics of the included studies in this scoping review were then summarised in a tabular format. Relevant information that addressed the study questions were then gathered and summarized. The result was presented in narrative synthesis.

## 3.7 Ethical consideration

Ethical approval was obtained from the Research Ethical Committee of College of Medical Sciences before the commencement of the study. The Ethical approval number: CMS/REC/2024/810.

# CHAPTER FOUR

# RESULTS

## 4.1 Study Selection

The literature search from the databases generated and exported to the COVIDENCE systematic review software revealed 1,032 studies and records identified from grey literature included 101 studies. After removing duplicates, the titles and abstracts of 530 articles from COVIDENCE, 21 from grey literature and 2 articles from the citation/references search were screened against the inclusion and exclusion criteria. 489 records from COVIDENCE and 16 from grey literature were excluded (Fig. 1). Of the remaining 41 articles from COVIDENCE, 3 articles from grey literature and 2 articles from citation/references search, all could be retrieved. Only 19 articles were included, 14 from the database search and 3 from grey literature and 2 from citation/references search. Twenty seven (27) articles from COVIDENCE were excluded for the following reasons: Protocols(n=3), abstract (n=4), wrong objectives (n = 8), wrong publication (n=3), can't retrieve articles (n=2), no barrier or facilitator to MI use was reported (n=7). 16 articles from grey literature were excluded for the following reasons: Wrong objectives (n=8), wrong population (n=5), Duplicate (n=2), no barrier or facilitator to MI use was reported (n=1).

The PRISMA flow chart of study selection is presented in figure 1.

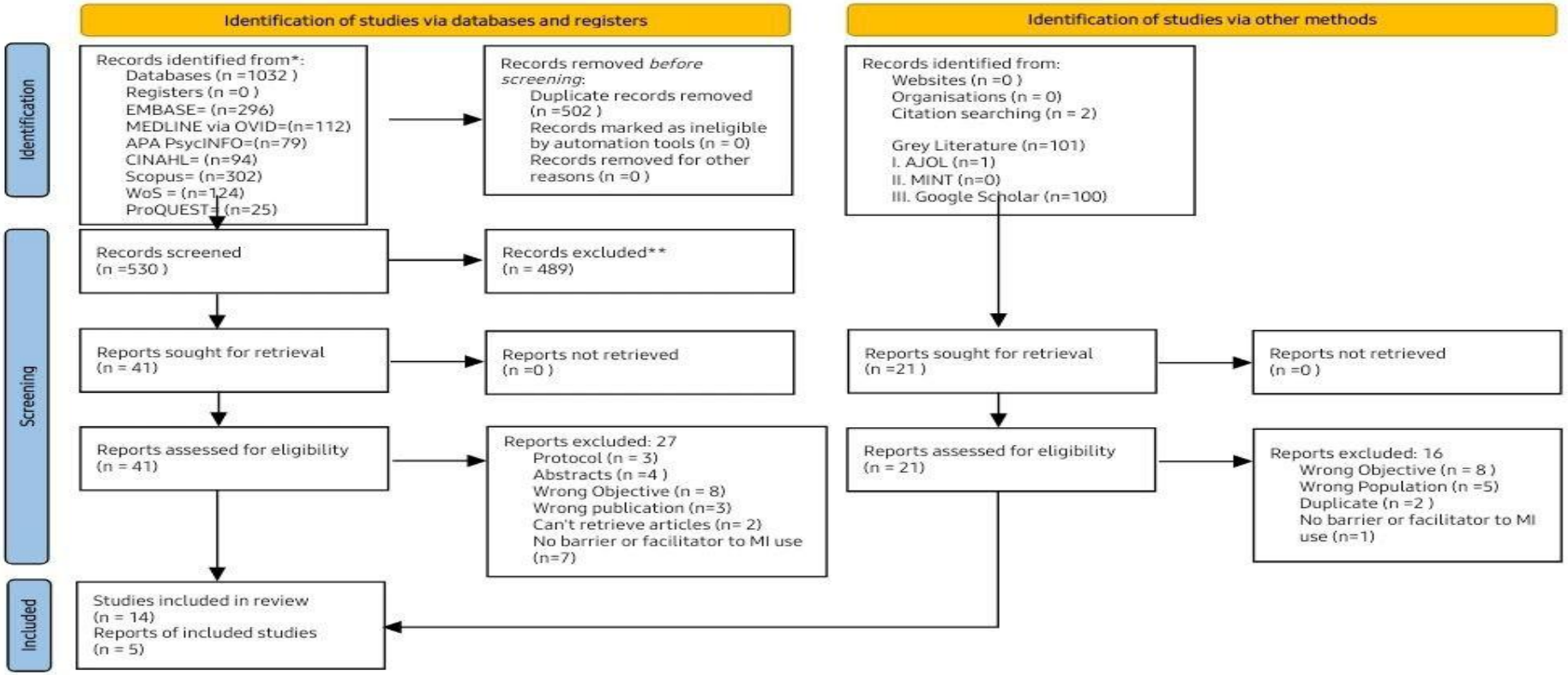


**Figure 1: PRISMA flow diagram of the study selection**

## 4.2 Participants

A total of 456 participants were included in the studies, however, one study did not record the number of participants (Velasquez et al., 2000). Almost all the participants involved in the studies had previous knowledge of MI or were trained in MI prior to the study but some were not MI trained (Aujoulat et al., 2025; Temedda et al., 2024; van Eijk-Hustings et al., 2011; Verdeflor, 2022; Wood et al., 2011) while one study did not report the participant's level of experience or training in MI (Schøler et al., 2025). Eleven studies specifically included nurses as participants (Boom et al., 2022; Khatri et al., 2024; Ostlund et al., 2015; Sannes, 2011; Schøler et al., 2025; Söderlund et al., 2008; Soderlund et al., 2009; Temedda, 2024; van Eijk-Hustings et al., 2011; Velasquez et al., 2000; Verdeflor, 2022), three studies included general practitioners (Aujoulat et al., 2025; Boom et al., 2022; Sannes, 2011), one study included podiatrists (Jongebloed-Westra et al., 2022), one included pediatricians (Kammering et al., 2024), one included dental hygienists (Curry-Chiu, 2015) and one included psychologists (Temedda et al., 2024). Participants of the included studies were from South Africa, The Netherlands, France, Germany, Nepal, United States of America, Denmark, Sweden and Canada.

## 4.3 Study Characteristics

A total of nineteen studies were included in this review. Of these, fourteen were qualitative studies (Aujoulat et al., 2025; Bell & Roomaney, 2020; Boom et al., 2022; Curry-Chiu, 2015; Khatri et al., 2024; Langlois & Goudreau, 2022; Ostlund et al., 2015; Schøler et al., 2025; Söderlund et al., 2008; Soderlund et al., 2009; Söderlund, 2010; Temedda et al., 2024; Velasquez et al., 2000; Wood et al., 2011), one randomised controlled trial (Jongebloed-Westra et al., 2022), one mixed-methods study (Kammering

et al., 2024), one descriptive quantitative study (Sannes, 2011), and one practice-change project (Verdeflor, 2022).

These studies were conducted across a wide range of healthcare settings, including: general practice (Aujoulat et al., 2025; Boom et al., 2022; Schøler et al., 2025); primary care (Langlois & Goudreau, 2022; Ostlund et al., 2015; Söderlund et al., 2008); local government facilities and private treatment institutions (Bell & Roomaney, 2020); a health organisation providing diabetic foot care (Jongebloed-Westra et al., 2022); outpatient clinics at a university children's hospital (Kammering et al., 2024); Hospital in Nepal (Khatri et al., 2024); clinics participating in the Minnesota Department of Health (MDH) SagePlus programme (Sannes, 2011); geriatric day-care or conventional care units (Temedda, 2024); an inpatient detoxification and rehabilitation facility (Verdeflor, 2022); clinical practice settings (Curry-Chiu, 2015); community pharmacies (Söderlund, 2010); substance abuse treatment centres (Wood et al., 2011); home visitation services, perinatal clinics, and a large health maintenance organisation (Velasquez et al., 2000); and a diabetes care management initiative (van Eijk-Hustings et al., 2011).

## Table 1: Study Characteristics

| Authors /year<br><br>(Country) | Study Design | Study Setting | Study aim or purpose | Population (healthcare) description/age(mean)<br><br>Sample size (Total, Female/male) | Level of experience/training in MI | Patients population where MI was applied | Healthcare providers perceived barriers to MI | Healthcare providers perceived facilitators to MI | Main Findings/<br><br>Limitations/Strengths |
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| Bell and Roomaney/2020<br><br>South Africa | A phenomenological research design (Qualitative study) | Local government facilities and private treatment institutions. | The aim of this study was to determine the barriers to implementing MI in South Africa from the perspective of practitioners who received training and achieved competency | Social and health practitioners were involved in the study/ 27 to 64 years (mean= 37 years)<br><br>Sample size<br><br>15 practitioners (13 women/2 men) | Participants reported different degrees of experience in MI, with some participants reporting having used MI only for one year, while others had used MI for up to 10 years. | NR | 1. Practitioner related factors (such as need for the therapeutic paradigm shift, lack of confidence in implementing MI and attitudes toward MI.)<br>2. Client-related factors (personal context, lack of family support, psychiatric comorbidity and cognitive ability, and client resistance)<br><br>3. Training and professional support (The impact of previous qualifications in MI and post-training supervision)<br><br>4. workplace- | NR | Main Findings: Several barriers that prevented practitioners' from using MI effectively as a<br><br>counselling approach with their clients were identified in the current study. These are multi-levelled<br><br>and are located within the client, practitioner, training programmes and context where counselling occurs. This study indicates that each of these levels<br><br>should be assessed prior to implementing MI in order to |

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| | | | in MI. | | | | related factors (management as a barrier, and time as a barrier) | | determine if MI is feasible within the proposed<br><br>setting.<br><br>Strengths: The strength of the study is that several recommendations for practice stem from this study.<br><br>Limitations: The main limitation of the study was that it only explored practitioners' experiences of barriers to MI and not the perspectives of programme managers and other staff where the practitioners worked. A second limitation relates to the sampling size and that participants were recruited only from the Western Cape. |
| Boom et al/2022<br><br>The Netherlands | A constructivist perspective (Qualitative Study) | General Practice setting | The aim of this study was to identify factors that | General Practitioners (GPs) and Practice Nurses (PNs)/NR | The participants who started their MI training | NR | 1. Setting factors (time, combination with other tasks, continuity, recognizing opportunities and teamwork)<br>2. GP/PN factors (Introduction to | NR | Main result<br><br>Thirteen factors that infuence the implementation of MI in General Practice were identifed. They can be allocated to three |

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| | | | facilitate or impede the implementation of MI in General Practice. | Sample size<br><br>152 participants: 93 General Practitioner-trainees and 59 Practice Nurse-trainees | between November 2015 and December 2016 | | MI, perception of professional responsibility, usefulness, self-efficacy and ingrained habits)<br>3. Patient factors ( Level of understanding, age and culture) | | categories: (1) setting factors such as time, (2) GP/PN factors such as self-efficacy, and (3) patient factors such as cultural background. Overall, GPs and PNs considered MI to be useful and part of their professional responsibility. Most difficulties become apparent in stage 4 (change: applying MI skills in practice) and 5 (consolidation: integrating MI into daily routine and embedment in organisation) of Grol and Wensing's model<br><br>Strength<br><br>Strengths of this study are the combination of questionnaires and in-depth interviews, the inclusion of both professions (GPs and PNs) who use MI in the General practice setting, the heterogeneity of the participants and distinct professional backgrounds of the researchers to ensure that the data is |

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| | | | | | | | | | interpreted through a lens of diferent experiences and perspectives. A theoretical framework was also used to address all the stages and aspects that are considered important for successful implementation.<br><br>Limitation<br><br>A limitation of the study is that practitioners willing to partake in the interviews may be particularly interested in MI. Secondly, a common source of bias is social-desirable answers. |
| Aujoulat et al/2025<br><br>France | A qualitative approach | General Practice setting | This study aims to describe the knowledge GPs in Finistère Brittany have about MI and their perceived benefts and barriers to | A GP (PA) with academic<br><br>backgrounds and two general medicine female trainees<br><br>(AM and CLR)/36–58 years (mean = 42 years) | Most participants had a vague idea about what MI was but could not explain the techniques used. Several participants had previously | NR | 1. Physician-related barriers (The need to make change)<br>2. Perceived Patient-related barriers (Language or intellectual barriers and limited scientifc knowledge)<br>3. Costs, Training and Time (little available training in MI) | NR | Main result<br><br>This study highlighted general practitioners' limited knowledge of MI but recognized its value in promoting patient-centered care and behaviour change. GPs identifed its potential in areas like cancer screening, chronic disease management, and vaccine hesitancy while noting barriers such as time constraints |

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| | | | using MI in general practice. | Sample size<br><br>11 General Practitioners (6 female/5 male) | received some training in MI. | | | | and insufcient training.<br><br>Strength<br><br>The strength of the study is that all participants were questioned iteratively to obtain in-depth data rather than surveying them to enhance credibility and dependability. Additionally, the coding process was also iterative, and the analyses involved multiple steps, including analysts from diverse backgrounds (investigator triangulation).<br><br>Limitation<br><br>A limitation of the study is that first, GP trainees were excluded from this study, as they were considered a different population requiring separate analysis. Secondly, some GPs might have provided socially desirable responses during the interviews and Thirdly, the interviews were relatively short to enhance |

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| | | | | | | | | | acceptability. |
| Jongebloed-Westra et al/ 2022<br><br>The Nethelands | A randomised controlled trial (RCT) | A health organisation providing treatment for people with diabetic foot disease | This study aims to analyse the application of MI in consultations carried out by MI-trained and non- MI-trained podiatrists in daily clinical practice, and to explore the podiatrists' attitudes and experiences towards the use of MI and the implementation of the MI- | Podiatrists/25 and 51 years (median 29.5)<br><br>Sample size<br><br>22 participants (12 female/10 male) | 18 podiatrists followed a three-day basic training in MI and 4 podiatrists were not trained in MI | NR | 1. Applying the tips and tricks of the MI-training made the use of MI feel unnatural and uncomfortable, because the podiatrist had to ask the patient more questions than usual. 2. There were other matters that had to be discussed during an appointment and the podiatrists' own working method. 3. Negative experiences with MI use and because other communication techniques seemed more effective to them. 4. The patient not engaging. 5. MI use being more difficult with unknown patients. | 1. Ease of change (similarly between previous techniques and MI-related communication techniques. 2. The use of MI was easier with established patient relationships. | Main findings<br><br>From the study, the MI-trained podiatrists scored significantly higher than the non-MI-trained podiatrists. The podiatrists mainly reported their attitudes and experiences regarding partnership and cultivating change talk, during the interviews. In addition, they also mentioned facilitators and barriers to using MI and indicated whether they experienced MI as having added value.<br><br>Strength<br><br>A strength of this study is the mixed-method approach with data triangulation, providing more robust evidence than in the previous pilot studies. Further, the audio recorded consultations |

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| | | | techniques in their work with people with diabetes at high-risk of foot ulcers. | | | | | | carried out by the MI-trained and non-MI-trained podiatrists were assessed by two independent external coders who were blinded to the MI-training status of the podiatrists. Finally, the coders only counted the behaviours of the podiatrists on relevant aspects of the consultations, so the behaviours of the podiatrists during of-topic speaking were not counted.<br><br>Limitation<br><br>This study may be limited first by the skewed ratio between the number of podiatrists in the intervention and in the control group, which means that the results of this study must be interpreted with caution. Secondly, the mean ICC levels for persuade and complex refection were only fair and, even poor for the behavioural count confront despite both coders agreement on the description of the MITI codes, which are standardised and |

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| | | | | | | | | | valid. In addition, due to lack of variance, the ICCs for the global score on softening sustain talk and the behavioural count on seeking collaboration and emphasising autonomy could not be calculated at all. |
| Kammering et al/2024<br><br>Germany | A mixed methods design. | The outpatient clinics of the University Children's Hospital | The study's aim was to explore clinicians' experiences of MI training and subsequent use of MI in the routine care of adolescents with CMCs. | Pediatricians/NR<br><br>Sample size<br><br>20 participants (12 female and 7 male) while 1 participant did not consent to participate. | The doctors attended a 2-day in-person MI training course and booster sessions one year after study initiation | Adolescents | 1. Insufficient framework 2. Lack of time 3. Some physicians stated that they had too little practical experience and did not feel sufficiently trained. 4. Some physicians felt insecure about conducting MI consultations. | NR | Main result<br><br>The paediatricians' experiences with MI demonstrate that MI is regarded as a valuable tool when working with adolescents with CMCs. 95% of all respondents reported that they found MI education necessary for their clinical work and were using it also outside the COACH-MI study context. 73.7% percent saw potential to strengthen the connection to their patients by using MI. Obstacles were seen in the short<br><br>training, the lack of time and missing undisturbed environment<br><br>Strength NR |

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| | | | | | | | | | Limitation<br><br>As a limitation, a limited number of paediatricians were recruited in the single-center study. No validated questionnaire was available for evaluating paediatricians' experiences with a two-day MI workshop. Thus, the questionnaire was designed to address the study's research questions. The application of MI in the study was limited to counselling adolescents with CMCs and a positive screening for anxiety and depression symptoms. The questionnaire was conducted one year after the study was completed, and this temporal distance might have influenced the physicians' responses and might incur substantial recall bias. Further, querying paediatricians about their practices pre- and post-MI training, knowing the MI-training is the studied intervention, is prone to social desirability bias. |

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| Khatri et al/2024<br><br>Nepal | A descriptive qualitative study | A hospital in Nepal-Bayalpata hospital | The aim of this study was to illustrate the barriers and facilitators experienced by CHWs when using COMMIT+ to deliver MI for YLWH in rural Nepal. | Community Health Workers (CHWs) and Community Health Nurses (CHNs)/ NR<br><br>Sample size<br><br>19 participants: 12 CHWs and 7 CHNs | All CHWs and CHNs had received a 35-hour MI skills training. CHNs received additional 20-hour MI supervision training. | Youth living with HIV in rural Nepal | 1. Unlearning habits from conventional counseling. 2. Hesitation in recording conversations. 3. Limited opportunities to practice MI with YLWH. 4. Lack of MI skills among the supervisors. | 1. Training and practice. 2. Supervision support. 3. Features of COMMIT+ 4. Peer learning. | Main result<br><br>The barriers and facilitators experienced by CHWs in using a mHealth tool to deliver MI for youth living with HIV in rural Nepal was identified. It also highlighted that supportive supervision and user-friendly features of the tool can mitigate many of the barriers. Several initial barriers to the implementation of the digital intervention COMMIT+ were identifed but were able to be overcome through practice and supervision. This study provides preliminary evidence that mHealth interventions that are designed by incorporating the perspectives of healthcare providers can assist them in maintaining skills.<br><br>Strength<br><br>the use of audio recording enabled by the tool was considered as a facilitator as it |

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| | | | | | | | | | supported the supervision process. Also, the prompts, specific text, and lack of distracting information likely helped the CHWs use the tool to address challenges they anticipated while delivering MI.<br><br>Limitation<br><br>A limitation of the study is that MI is still not widely available in low-resource settings and this presented a challenge in the study as the supervisors were also learning MI for the first time and even the supervisors were sometimes not comfortable using MI. Secondly, the CHWs informally access peer-based learning. As such, our study may have been unable to uncover the impact of such peer-based support. |
| Sannes /2011 | A descriptive quantitative design | Clinics throughout Minnesota that were | The purpose of this study was to determine if | Healthcare providers (physician, NP, PA, or RN)/25 to | Participating providers attended the MDH MI | Women between the ages of 40 and 64 | 1. Provider Barriers (knowledge, attitudes, skills of delivering lifestyle counseling, and behavioral routines). 2. Client | NR | Main result<br><br>From the study, healthcare providers have identified that |

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| USA | | participating in the MDH SagePlus program | healthcare providers perceive any barriers in utilizing MI techniques to do lifestyle counseling with SagePlus program particiants. | 66 years (mean = 45)<br><br>Sample size<br><br>16 healthcare providers(15 female/1 male) | continuing education training sessions to become and stay proficient in MI. | years old, | Barriers (client knowledge, attitude, skill, and adherence). 3. Practice Barriers (organization of care processes, staff, capacities, resources, and structures) | | there are several barriers that they needed to overcome to be effective in using MI techniques to do SagePlus lifestyle counseling. The most significant barriers identified are at the level of the client. The least significant barriers have to do with the attitude of the provider toward doing lifestyle counseling, the importance of lifestyle counseling, and their satisfaction with their job. The providers appear to be motivated to do lifestyle counseling; they value the importance of doing lifestyle counseling, and believe that their clients want to make lifestyle changes. They just feel that their clients have too many obstacles to overcome to be able to make lifestyle changes.<br><br>Strength NR<br><br>Limitation<br><br>A limitation to this study was the sample size of up to 22 potential participants. Another limitation |

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| | | | | | | | | | was that the validity and reliability of the modified PMAAQ was unknown due to the modifications made to it for this study. Also, the PMAAQ was developed to be used with physicians in preventive medicine in primary care. In this study the PMAAQ was given to a range of healthcare providers in addition to physicians it was also given to advanced practice nurses, registered nurses, licensed practical nurses, dieticians, and social workers who were providing SagePlus lifestyle counseling. Lastly, the culture of each individual clinic could affect which, if any, barriers are perceived by the healthcare providers using MI for lifestyle counseling. |
| Schøler et al/2025<br><br>Denmark | A qualitative interview study | General practice setting | The study aimed to assess healthcare professionals ' perceptions of | General practitioners and nurses (N=28)/NR | NR | NR | 1. Outer setting domain (Local attitudes, Local conditions and Partnership and connections) 2. Inner setting domain (Structural characteristics, Information technology-infrastructure and Work infrastructure) 3. | 1. Innovation domain (Innovation evidence-base, Innovation | Main rsult<br><br>Healthcare professionals identified several determinants facilitating early-stage implementation of the 15-method in Danish general |

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| | | | determinants for early-stage implementation of the 15-method in Danish general practice and to classify these determinants using the Consolidated Framework for Implementation Research (CFIR). | Sample size<br><br>28 Healthcare providers | | | Implementation process domain (Planning) | relative advantage and Innovation adaptability ) 2. Inner setting domain (Communications, Culture, Recipient-Centeredness Deliverer-centeredness, Learning-centeredness, Tension for change, Compatibility and Access to knowledge and information ) 4. Implementa | practice, indicating that implementation of the method is possible. From the healthcare professionals' perspective, the main challenge was balancing patient motivation with their own opportunities and capability to deliver the intervention. The findings suggest that a multifaceted implementation strategy may be necessary to address the variations in context and resources across different practices.<br><br>Strength NR<br><br>Limitation<br><br>The present study has important limitations. First, as the MRC guidance on process evaluation states, working with intervention stakeholders can be challenging as to whether the researchers should communicate emerging findings to provide feedback and help correct implementation problems or challenges, or merely be passive observers. In |

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| | | | | | | | | tion process domain (Teaming, Assessing Needs, Assessing context and Adapting) | four of the twelve practices, the article did not manage to include the nurses' perspective and in one practice no GP was interviewed. This happened due to logistical constraintsLastly, we focused solely on HCP's perceptions of determinants, including aspects such as implementation process in their own practices and patient motivation. |
| Soderlund et al/2009<br><br>Sweden | A qualitative study | Healthcare setting | The aim of this study was to identify barriers and facilitators to nurses' application of motivational interviewing (MI) to counselling over-weight and obese children aged 5 and 7 | Child welfare centre nurses and health service nurses/NR<br><br>11 nurses (5 child welfare centre nurses and 6 school health service nurses) | The nurses were trained for 2 days in the basic principles of MI. They then practiced MI for 6 months in their routine work. | Over-weight and obese children aged between 5 and 7 years | 1. Nurse's problem denial 2. Nurse's problem ambivalence 3. Nurse's perception that parents denied or were ambivalent to the child's problem. 4. Nurse's perception of parents lacking willingness or motivation despite likely problem recognition | 1. Nurse's perceived advantages of MI techniques as an important problem solver. 2. Nurses working with obese children because there is more of a problem | Main result<br><br>From the study, despite the nurses' recognition of the advantages of MI, many found it difficult to counsel the children and their parents on weight issues. Several barriers to the use of MI were identified. Some of the problems the nurses experienced arose from the fact that many were sceptical as to whether pediatric over-weight or obesity really constitutes an important health hazard. The nurses perceived that their scepticism was shared by many |

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| | | | years, accompanied by their parents. | | | | | recognition 3. Nurse's perception of parents being cooperative , knowledge able and aware of the child's problem | of the children's parents. The extent to which MI was applied seemed to depend on how problem recognition among the nurses and parents overlapped.<br><br>Strength<br><br>This study has provided information on difficulties associated with applying MI with paediatric overweight and obesity.<br><br>Limitation<br><br>the exploratory nature of this research and methodological limitations constrains the conclusions to be drawn from this study. |
| Söderlund et al/2008<br><br>Sweden | A qualitative study | 10 primary health care units | This article explores the training and counselling experiences of 20 nurses, aiming to identify key elements in | Nurses/NR<br><br>Sample size<br><br>30 nurses | The nurses had been practicing MI counselling in daily clinical work for about a year. | NR | 1. The difficulty of 're-programming' to adopt a new frame of mind. 2. Difficulty of achieving effective communication with patients who were unwilling to accept responsibility for their own health | 1. extensive training and supervision | Main result<br><br>Extensive training and close integration of training and practice were seen as crucial aspects to effective learning of MI skills. A barrier to satisfactory learning of the MI counselling skills was the diffi |

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| | | | the process of learning and applying motivational interviewing (MI) counselling skills with adherence to protocols. | | | | | | culty of adjusting to the new way of thinking required when practicing this technique, since it contrasted with the authoritarian expert approach that the nurses were used to. Another difficulty wasachieving effective communication with patients who were unwilling to accept responsibility for their own health.<br><br>Strength<br><br>This study has provided information on key elements of learning MI and some implications for MI training efforts.<br><br>Limitation<br><br>The exploratory nature of this research and methodological limitations constrain the conclusions to be drawn from this study. |
| Temedda et al.,/2024 | A qualitative study | Geriatric day-care units or geriatric | The aim of this study was to | Geriatricians, nurses, pharmacists and | 3 HCPs out of 23 were trained and | Older hospitalized | Lack of knowledge about MI, lack of readiness to change in older population, partnership, | HCP's awareness about MI, | Main result<br><br>Overall, 25 factors (13 |

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| France | | conventional care units in several French hospitals, | understand through Healthcare professionals ' (HCPs) opinions the barriers and facilitators to implement MI in older hospitalized patients. | psychologists / The mean age of HCPs was 39.1 ± 9.3 years old<br>Sample size<br>23 HCPs (7 nurses, 7 pharmacists, 6 geriatricians, and 3 psychologists) | had experience in MI | patients | therapeutic alliance, HCP-older patient, Not having dedicated time and HCPs to conduct MI with older patients, environment and temporality to conduct MI, The acute phase in hospitalization, cognitive and sensory disorders in older patients, The frailty and fatigue of older patients, depression, functional disorders in older patients and using certain MI elements implicitly | MI training, Older patient acceptance of MI interventio n, Sociocultur al level, Supporting role of HCPs, Providing the appropriate information (vocabulary ), Partnership , therapeutic alliance, HCP-older patient, environmen t and temporality to conduct | facilitators, 8 barriers, 4 both) were identified and mapped into 9 out of the 14 TDF themes. These factors were mainly identified as HCPs- and Patient-related factors. Our study also revealed specific factors influencing MI implementation in relation to the older population, such as 'Readiness to change', 'Cognitive and sensory disorders', 'Frailty and fatigue', or the importance of involving 'Caregivers/Family' in MI sessions. Additionally, several recommendations and modalities for using MI with hospitalized older patients were identified through an inductive approach<br>Strength<br>Triangulation of researchers in data collection and analysis contributes to the internal validity of the study. All types of HCPs involved in the medication management in a hospital setting were included in the study. The |

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| | | | | | | | | MI, Having dedicated time and HCPs to conduct MI with older patients, Caregiver/Family, Using active listening and empathy, A greater experience with diseases and medications, MI techniques that are appropriate to older patients' expectations, Using certain MI | multidisciplinary nature and heterogeneity of included HCPs represent another strength of the study.<br><br>Limitation<br><br>the majority of interviewed HCPs were not trained in MI. Indeed, the use of MI in hospital setting is poorly developed in France, and it proved difficult to include HCPs trained in MI and involved in the care pathway of older patients in the hospital. Another limitation could be highlighted, the qualitative study was based solely on HCPs' opinions. |

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| | | | | | | | | elements implicitly, Beliefs about the possibility to use MI in older population regarding patient's capabilities , Beliefs about MI implementation in geriatric wards | |
| van Eijk-Hustings et al.,/2011<br><br>The Netherlands | A descriptive study | A healthcare setting (diabetes care management initiative) | The objective of the present study was to examine the uptake of MI in daily practice by health care professionals in a care management | Practice nurses, diabetes specialist nurses and dieticians/The mean age for the intervention group was 38.5 ± 8.7 years, and in the reference group 42.5 ± 8.5years. | MI-trained professionals (n = 10) and MI untrained professionals (n = 10) | Patients with diabetes | The use of more complex skills and techniques however, like elicit change talk, deal with resistance and give complex reflections needed more training to apply these in daily practice.<br>2. High workload or fatigue at the end of the workday made them fall back into old conversation techniques. | 1. MI appliance in daily practice, feedback on audiotapes and intervision with colleagues supported | Main result<br><br>This research has shown that MI is applicable in daily practice for practice nurses, diabetes specialist nurses and dieticians with various degrees of uptake. After the end of the training period, practice nurses and diabetes specialist nurses obtained equal or even better scores on the MITI, compared |

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| | | | initiative for patients with diabetes in the region of Maastricht, the Netherlands. | 35 practice nurses, diabetes specialist nurses and dieticians | | | | the sinking in of the learned skills. 2. Long-term support by colleagues and trainer was regarded as being necessary. | with results in the literature. The results of the MITI regarding global scores for empathy and spirit demonstrate that, once learned, improvement takes place in the course of time. Results on basic skills of MI indicate that these are fast to learn. However, the estimated decline in the application of different skills of MI illustrates that the achievement of a permanent change is more difficult. These results correspond with the literature indicating that health care professionals can be trained in MI but that ongoing training, support and investment of time is needed.<br><br>Strength<br><br>Participants in the study represent those health care professionals who are mainly involved in counseling life style. This group in our opinion is the most appropriate target group for |

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| | | | | | | | | | training.<br><br>Limitation<br><br>The medical staff in the care management initiative expected the training period too time consuming. The study population was therefore a selection of health care professionals interested in training for MI and not representative for all professionals in the initiative. However, participants in the study represent those health care professionals who are mainly involved in counseling life style. This group in our opinion is the most appropriate target group for training. Although results on the MITI were compared with results from another study, baseline scores of the health care professionals as well as scores from the reference group are lacking. |
| Velasquez et al.,/ 2000 | A qualitative study | Home visitations, | This paper described the | Public health nurses and case | Health care providers at | Pregnant Smokers | 1. Limited follow-up, training and monitoring. 2. Organization and | NR | Main result<br><br>Additional time and ongoing |

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| USA | | urban and rural medical school based perinatal care clinics and large group model health maintenance organisation. | process involved in training healthcare providers to use MI and the issues encountered in implementing the protocols. | managers, nurse and social worker case managers and nurse educators/NR<br><br>Sample size<br><br>NR | all three sites attended local training workshops in which they learned to apply the basics of MI to their study protocol | | other contextual factors (In each of the organisations, providers were under pressure to handle large caseloads). 3. Competing priorities in providers' perception of risk factors | | resources need to be allocated to training health care providers to deliver motivational interventions in order to maximise their eVectiveness. Health care organisations can provide additional support by identifying a team of providers who can serve as health behaviour counsellors. Providers who are interested and committed to learning new motivational skills to enhance health behaviour change can attend basic and ongoing training workshops to provide them with enhanced skills to address patients' health concerns<br><br>Strength and Limitation<br><br>NR |
| Verdeflor/2022<br><br>USA | A practice change project | An in-patient detox and rehab facility | The project's overall goal was to improve nurses' attitudes | Nurses (nurse practitioners, registered nurses, licensed practical nurses)/Two were LPNs, aged 30-39 | One participant was familiar with MI, two had minimal knowledge of | Adult patients with substance use disorders | Lack of adequate time was the main barrier | NR | Main result<br><br>Nurses who participated in the project were able to improve their attitudes towards, and knowledge of, motivational |

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| | | | towards, knowledge of, and use of Motivational Interviewing when working with patients in an in-patient detox and rehab facility. | and 2 were APNs, aged 50-64<br><br>Sample size<br><br>4 Nurses | MI (attended a lecture or read an article) and one was not at all familiar with MI | | | | interviewing after viewing an online, case-based educational module designed specifically for nurses. However, the intervention did not lead to a 50% improvement in knowledge and attitudes as had been hypothesized and the participants answered extra responses on the open MIKAT question. Results from the post-intervention test showed that nurses who completed the modules were more likely to use MI techniques with their patients than they were before completing the modules, although time was identified as a barrier towards optimal use of the techniques in clinical practice.<br><br>Strength.NR<br><br>Limitation<br><br>The low number of participants means that the results cannot be generalized to other populations of nurses. It is unclear why other |

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| | | | | | | | | | potential participants did not enroll. They may have represented a different population of nurses at the site. As well, the setting for this project was limited to one facility. The results are not generalizable to other sites. Lastly, the participants in this study were all female, LPNs and APNs in a limited age range. Results of the study do not reflect other health professions. |
| Curry-Chiu et al.,/2015<br><br>USA | An exploratory, qualitative case study design | Clinical Practice | The aim of this qualitative study was to use semi-structured interviews with nine program alumni to provide insight into the experiences of MI-trained dental | Dental hygienists/NR<br><br>Sample size<br>9 participants | All participants were MI trained | Dental patients | Time, Effort/energy, Responding to less motivated patients and Climate | Supportive climate and adapting working style | Main result<br>The practicing dental hygienists in this study strongly valued and embraced the spirit of MI. They reported feeling strongly that it should be part of all dental hygiene curricula, and they upheld MI as a best practice. The participants approved of their MI instruction as a whole but felt it was dificult and sometimes not viable in practice. They reported that MI training had improved their communication skills and increased treatment acceptance. |

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| | | | hygienists in clinical practice. | | | | | | Time, dificulty, and managing patient resistance were the most often cited barriers, while a supportive climate and creating a routine were the most often cited facilitators. The results of this study help to support integration of MI into dental hygiene curricula<br><br>Strength<br><br>To minimize this bias, design strategies were put in place to enhance validity.<br><br>Limitation<br><br>In qualitative research, the researcher is the instrument of data collection and analysis, so there is a potential for researcher bias. The study deliberately sought information-rich participants. Finally, this study relied on interviewee self-assessments that may or may not be accurate. Self-perception has the potential for self-enhancement bias or self- |

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| | | | | | | | | | diminishment bias. |
| Söderlund/2010<br><br>Sweden | A qualitative research methodology | Community Pharmacists | To identify barriers, facilitators and modifiers to the use of MI with pharmacy clients in community pharmacies. | Community pharmacy pharmacists /NR<br><br>Sample size<br><br>15 community pharmacy | Participants were trained in MI | Pharmacy clients | 1. Time limitations. 2. Feed-back from clients. 3. Difficulty initiating MI counselling and engaging in conversation with many clients. 4. A strained organizational climate | Participants that previously participated in education that included elements similar to MI, the physical environment of the pharmacies was favourable for MI use and Feed-back from clients | Main result<br><br>From the study, pharmacists who had previously participated in education that included elements similar to MI felt this facilitated their use of MI. The pharmacists believed the physical environment of the pharmacies was favourable for MI use, but they experienced time limitations when there were many clients on the premises. The organizational context affected the pharmacists' attitudes to using MI. Feed-back from clients was a modifier depending on client reaction it could be encouraging or incouraging.<br><br>Strength<br><br>The results of the study was discussed among the research team and were verbally presented to all study participants in meetings |

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| | | | | | | | | | especially organized to ensure that confirmability was achieved in this research.<br><br>Limitation<br><br>There was somewhat limited transferability because studies in other settings may yield different factors modifying, hindering or facilitating the use of MI. It is even possible that other studies conducted in the same settings could identify different factors. |
| Wood et al.,/2011<br><br>USA | Qualitative study | Substance abuse treatment settings | The purpose of this qualitative study was to examine factors influencing the adoption of MI across various substance abuse treatment | Practitioners and administrators/ 27 years old to 66 years old (Mean= 46).<br><br>Sample size<br><br>20 practitioners and administrators | 10 participants were trained in MI while 10 were not trained in MI | Substance abusers | 1. Resources (time was a barrier, problems with scheduling training, time for supervision, or too few staff) 2. Goodness of fit (This can be identified as a barrier because some practitioners viewed MI as useful only with certain clients. MI lacked "fit" for the traditional counselor because they perceived confrontation to be the most effective approach tohelping a client change instead of MI.) 3. Flexibility/inflexibility. 4. | 1. Goodness of fit (MI fit with client-centered practitioners who recognized and even emphasized the importance of allowing | Main result<br><br>Overall, the resulting themes support findings in the literature. For example, results indicated the importance of resources, including information, training, and time. The NOPIC provided information toward trainings and raising awareness about MI for the local providers and maintained visibility of MI through newsletters and workshops. The common |

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| | | | settings. | | | | Adaptability of MI. 5. Ongoing sill and development (the need for more training for staff as well as supervisors, as well as the need to train staff who have not yet been trained.) | the client to take responsibility for his or her progress in treatment) 3. Flexibility/inflexibility. 4. Adaptability of MI, ungoing sill and development | resource barriers of time and money were clearly noted by participants. Additionally, agency support, openness to change, and, in some cases, permission to use MI techniques, facilitated implementation of MI. Agency support is crucial to implementation of innovative practices Technology Transfer Centers, 2000; Si. Thus, organizational support is critical to addressing resource issues that can present significant barriers to implementation<br><br>Strength\NR<br><br>Limitation<br><br>Limitations of the study include the small sample size as a qualitative study and therefore lack of generalizability beyond the application of MI or the context of substance abuse providers in southeast Louisiana. Additionally, the study sample resulted in a group not representative of the providers in |

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| | | | | | | | | | the New Orleans metropolitan area in terms of race, gender, and education. Finally, the results are limited to practitioner self-report. |
| Langlois and Goudreau/2022<br><br>Canada | Qualitative study | Primary healthcare | This study describes primary care clinicians' professional transformation in implementing MI through interprofessional communities of practice (ICP-MI) | Clinicans/NR<br><br>Sample size<br><br>16 participating clinicians | Participants were trained in MI | Patients in Primary Care | 1. Intrinsic Factors (clinicians' personal trait) 2. Extrinsic Factors (no supportive environment) | 1. Intrinsic Factors (Clinician's personality traits, clinicians that perceived professional development as a lifelong learning project, Having developed personal and professional<br><br>maturity, The | Main result<br><br>4 processes of MI implementation in primary care are presented as a motivational endeavor: ambivalence, introspection, experimentation and mobilization. The clinicians were initially ambivalent, taking into consideration the significant challenges involved. After introspecting actual practices, they realized the limits of their previous clinician-centered approaches. The experimentation of MI in the workplace followed and enabled clinicians to witness MI feasibility and its added value. Finally, they were mobilized to ensure MI sustainability in their practices/organization. Intrinsic factors of influence included the clinicians' personal traits and |

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| | | | | | | | | perception of MI as a clinical priority and clinicians from other professions perceiving health behavior change support as a cornerstone of their clinical approach.)<br>2. Extrinsic Factors (Local and organizational support, Support from managers and administrative support) | their perception about MI as a clinical priority. Organizational support was also a crucial extrinsic factor in encouraging the clinicians' efforts<br><br>Strength<br><br>The contextualization of the findings was guided by the Consolidated Framework for Implementation Research (CFIR). Damschroder and colleagues (2009) emphasized the lack of research on the intrinsic factors influencing the implementation of health care innovations and the frequentbomission of engaging activities within the implementation process. This study specifically addresses these knowledge gaps and contributes through its thorough description of clinicians' motivational endeavor in implementing MI within PC, as experienced and analyzed by the co-participants. |

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| | | | | | | | | | Limitation<br><br>The small number of clinicians who took part in the study prevented any generalizations. Regarding the influence of the different clinicians' perspectives on MI as a clinical priority that the study presented as possibly impacting MI implementation in PC, the literature review did not uncover any data on that topic. The context of private practice as an influential factor of MI implementation in PC was absent from our literature review. Finally, the study did not include patients and administrators, whose perspectives about MI implementation in PC would be interesting to detail in further inquiries. |
| Ostlund et al.,/2015<br><br>Sweden | Qualitative descriptive design | Swedish primary care settings | The study aim was to describe motivational interview trained | Primary care nurses/Mean age= 51.0 years (SD ± 9.7)<br><br>Sample size | The nurses were trained in MI | Patients receiving primary care | 1. Internal resistance (one's own insecurity, aversion to and difficulty learning new things and lack of openness) 2. Managerial factors (Need for inspiring support and follow up, | An encouragin g working climate (Openness at the | Main result<br><br>The main finding of the present study was that nurses felt working with MI facilitates and develops their work, but that it |

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| | | | nurses' experiences of motivational interviewing in primary care settings | 20 primary care nurses(19 females/1 male) | | | Need for feedback) | workplace, among colleagues and management and Practical conditions) | also requires an intrinsic openness, willingness and interest in learning the method within themselves as well as an interest in promoting the method at the workplace on the part of managers. Moreover, aversion to change was found among the non-users. The reported reasons for this aversion confirmed the need for some degree of interest in the method. The nurses also pointed out the need to talk about MI at the workplace.<br><br>Strength<br><br>The credibility of the study has also been strengthened by collaborating on the analysis in the research team and by seeking agreement among other researchers experienced in the method.By collaborating on the analysis, the potential risk of researcher bias affecting data interpretation has also been reduced.<br><br>Limitation |

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| | | | | | | | | | One limitation of the study is that the information is based on self-reports. We do not know whether the primary care nurses who reported using MI actually use it. |

## 4.4 Barriers to the utilisation of MI among healthcare providers

Various forms of barriers were identified as factors that hindered the use of MI among healthcare providers. Among these barriers are: lack of time (Aujoulat et al., 2025; Bell and Roomaney, 2020; Boom et al., 2022; Curry-Chiu, 2015; Kammering et al., 2024; Söderlund, 2010; Temedda, 2024; Verdeflor, 2022; Wood et al., 2011), inadequate training of the participants in MI (Aujoulat et al., 2025; Bell and Roomaney, 2020; Kammering et al., 2024; Velasquez et al., 2000; Wood et al., 2011), high work load and conflicting priorities (Boom et al., 2022; Jongebloed-Westra et al., 2022; Velasquez et al., 2000; Y.J.L. van Eijk-Hustings et al., 2011), patients/clients barriers such as language barriers, client resistance, age and level of understanding (Aujoulat et al., 2025; Bell and Roomaney, 2020; Boom et al., 2022; Langlois and Goudreau, 2022; Sannes, 2011) and other facilitators. This review revealed that while multiple barriers impede the use of MI, insufficient time was found to be the most frequently cited deterrent among various healthcare providers.

## 4.5 Facilitators to the utilisation of MI among healthcare providers

Some studies reported trainings received as a facilitator to the use of MI among healthcare providers (Khatri et al., 2024; Söderlund et al., 2008; Temedda et al., 2024), 5 studies identified supervision and support as a facilitator (Curry-Chiu, 2015; Khatri et al., 2024; Langlois and Goudreau, 2022; Söderlund et al., 2008; Y.J.L. van Eijk-Hustings et al., 2011) while 4 studies included a good working climate/environment (Curry-Chiu, 2015; Ostlund et al., 2015; Söderlund, 2010; Temedda, 2024). Furthermore, Langlois and Goudreau (2022) included intrinsic factors like clinician's personality traits, clinicians that perceived professional development as a lifelong learning project, having developed personal and professional maturity, the perception of MI as a clinical priority and

clinicians from other professions perceiving health behavior change support as a cornerstone of their clinical approach as facilitators to the utilisation of MI among healthcare providers.

# CHAPTER FIVE

# DISCUSSION, CONCLUSION AND RECOMMENDATION

## 5.1 Discussion

This scoping review aimed at identifying the barriers and facilitators to the use of MI among healthcare providers. Majority of the studies were qualitative studies and out of the 19 studies in total, 12 studies reported both barriers and facilitators (Curry-Chiu, 2015; Jongebloed-Westra et al., 2022; Khatri et al., 2024; Langlois and Goudreau, 2022; Ostlund et al., 2015; Schøler et al., 2025; Söderlund et al., 2008; Soderlund et al., 2009; Söderlund, 2010; Temedda, 2024; van Eijk-Hustings et al., 2011; Wood et al., 2011), 7 studies reported barriers alone while none of the studies reported only facilitators.

Among the commonly reported barriers were time limitations, heavy workload, limited knowledge of MI, and insufficient training. Lack of time emerged as a recurring challenge across studies, largely because MI was often combined with other tasks during patient visits (Boom et al., 2022), competing priorities needed to be addressed within the same consultation (Jongebloed-Westra et al., 2022), and patient appointments were generally too short (Curry-Chiu et al., 2015). Similarly, Hatch et al. (2021) identified time constraints and resistance to MI as the most influential staff-level barriers, with time rated as the most significant challenge by management. Foldal et al. (2021) further reinforced this finding, noting that insufficient time and space to practice and refine MI skills made its application difficult for caseworkers in a Norwegian return-to-work intervention.

The findings of the study revealed several facilitators of using MI among healthcare workers such as extensive training and supervision, awareness about MI and a supportive climate were mentioned. These facilitators help reduce barriers by addressing the root causes of resistance and creating an enabling environment for its effective implementation. Facilitators such as training and supervision can mitigate lack of skill and confidence by teaching specific skills like reflective listening and open-ended questions and provide a safe space for providers to practice, receive feedback, and refine their techniques (Evans et al., 2016). A strong organizational culture can help with time as a barrier by adjusting workloads of the healthcare providers, scheduling longer appointments, or protecting time for professional development. Appliance of MI in daily practice as a facilitator can also help to build up the healthcare provider's confidence in MI use.

The majority of the barriers and facilitators of MI use among healthcare workers were reported among nurses (Boom et al., 2022; Khatri et al., 2024; Ostlund et al., 2015; Sannes, 2011; Schøler et al., 2025; Söderlund et al., 2008; Soderlund et al., 2009; Temedda, 2024; van Eijk-Hustings et al., 2011; Velasquez et al., 2000; Verdeflor, 2022). This might be as a result of nurses being by far, the largest professional group in the global healthcare workforce or that a fundamental part of a nurse's role is patient education and health promotion. Potential reasons why nurses may have been more included in the identified studies could be because nurses represent the largest professional group in the global healthcare workforce, and their roles often place them at the center of patient education, health promotion, and ongoing communication with patients (Mujika et al., 2014). Consequently, nurses are frequently at the forefront of implementing MI interventions, which may explain why most of the evidence originates from nursing contexts (Brobeck et al., 2011). Interestingly, none of the included studies

were conducted among physiotherapists. Even in the context of physical activity, a recent review found that the majority of MI interventions aimed at facilitating behaviour change to improve physical activity were delivered by nurses, counsellors, or researchers rather than physiotherapists (Wintle et al., 2025). Another review and meta-analysis of 14 studies delivering MI with exercise and physical activity intervention showed that four out of the trial were delivered by physiotherapist. This highlights a clear gap in research and practice: physiotherapists, who are uniquely positioned to integrate MI into exercise prescription and rehabilitation, are not yet fully engaged in leveraging this approach despite its strong alignment with their clinical objectives.

The limitations of the various studies were highlighted and mentioned that only the experiences of the practitioners were used and not that of other staff or patients involved, giving of socially desirable answers by the providers, the few numbers of practitioners involved in the study, lack of training in MI and inadequate availability of MI in low resource settings to mention a few. Some strengths of the studies were: diverse health care providers included as study participants, the use of audio recording which facilitated supervision, provision of information on MI in practice, by collaborating on the analysis in the research team and by seeking agreement among other researchers experienced in the method. This collaboration reduces the potential risk of researcher bias which would have affected data interpretation. This study is limited to include participants who are healthcare providers alone and even among these, not all types of healthcare providers were mentioned. The use of MI only in healthcare setting thus excluding other settings, hence generalisability of the study findings may be limited. This project focused primarily on the provider's perspective and did not include the patient's perspective, thus limiting findings to healthcare providers alone.

## 5.2 Conclusion

The result from this review shows that factors such as lack of adequate time available to implement MI, inadequate training of healthcare providers, high workload of the healthcare providers, patient and client barriers to mention a few constitute the major barriers to the utilisation of MI among healthcare providers. Some facilitators which aided the use of MI were also highlighted which consists of trainings received by the healthcare providers, supervision and support gotten from colleagues and the management, and the presence of a good work environment/climate facilitate MI use among providers. In conclusion, this scoping review has systematically synthesized findings from 19 studies encompassing 456 participants (although one study did not include the number of participants), shedding light on the various barriers and facilitators influencing the use of MI among healthcare providers.

## 5.3 Recommendation

This review highlights the barriers and facilitators for MI use. It was highlighted that a lack of adequate training is a major barrier. Therefore, future research should evaluate the effectiveness of various MI training models and assess the impact of different delivery methods, such as online versus in-person training with the goal to establish an evidence base for best practices in MI training, ensuring that institutions and policymakers invest in the most effective and efficient methods to equip healthcare providers with MI skills. General themes were also identified, but gaining a deeper, more nuanced understanding of how barriers and facilitators operate within a unique environment e.g physiotherapy setting, psychology setting would be invaluable. This would allow for the development of tailored interventions and training programs that are sensitive to the specific challenges of that context, moving beyond a "one-size-fits-all" approach.

## 5.4 Implication for Further Studies

From this study, barriers and facilitators to MI use has been identified, further studies can aim to move from descriptive research to implementation science, where the focus is on how to break barriers and encourage facilitators which can help to effectively integrate MI into real-world clinical practice via developing and evaluating new training programs, testing different supervision models, or assessing the impact of organizational policy changes to MI use. Future studies can also aim to track providers over months or years to understand the long-term sustainability of their MI skills and this is crucial because it can reveal whether initial training translates into lasting behavioral change and identify what factors are necessary to prevent skill decay.

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# APPENDICES

## Appendix 1: Search strategy for chapters 3

| Database | Search Terms |
|---|---|
| WoS Core Collections – 16th July 2025<br><br>n= 124 | 1 = (TI=("motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*")) OR AB=("motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*") = 111,225<br><br>2 = (TI=("healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational therapists" )) OR AB=("healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational therapists" ) = 429,521<br><br>3 = (TI=("barriers" OR "facilitators" OR "enablers")) OR AB=("barriers" OR "facilitators" OR "enablers") = 454,604<br><br>4 = #3 AND #2 AND #1 = 126<br><br>5 = #3 AND #2 AND #1 and English (Languages) = 124 |
| EMBASE<br><br>n=296 | 1 = ("motivat* interview*" or "motivat* counsel*" or "MI" or "motivational interview*").mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] = 138198<br><br>2 = ("healthcare providers" or "healthcare workers" or "healthcare professionals" or "doctors" or |

| | |
|---|---|
| | "clinical psychologists" or "physiotherapists" or "nurses" or "social workers" or "occupational therapists").mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] = 605702<br><br>3 = ("barriers" or "facilitators" or "enablers").mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] = 327268<br><br>4 = 1 and 2 and 3 = 302<br><br>5 = limit 4 to (human and english language) = 296 |
| Medline<br><br>n=112 | 1 = ("motivat* interview*" or "motivat* counsel*" or "MI" or "motivational interview*").mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] = 74267<br><br>2 = ("healthcare providers" or "healthcare workers" or "healthcare professionals" or "doctors" or "clinical psychologists" or "physiotherapists" or "nurses" or "social workers" or "occupational therapists").mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare |

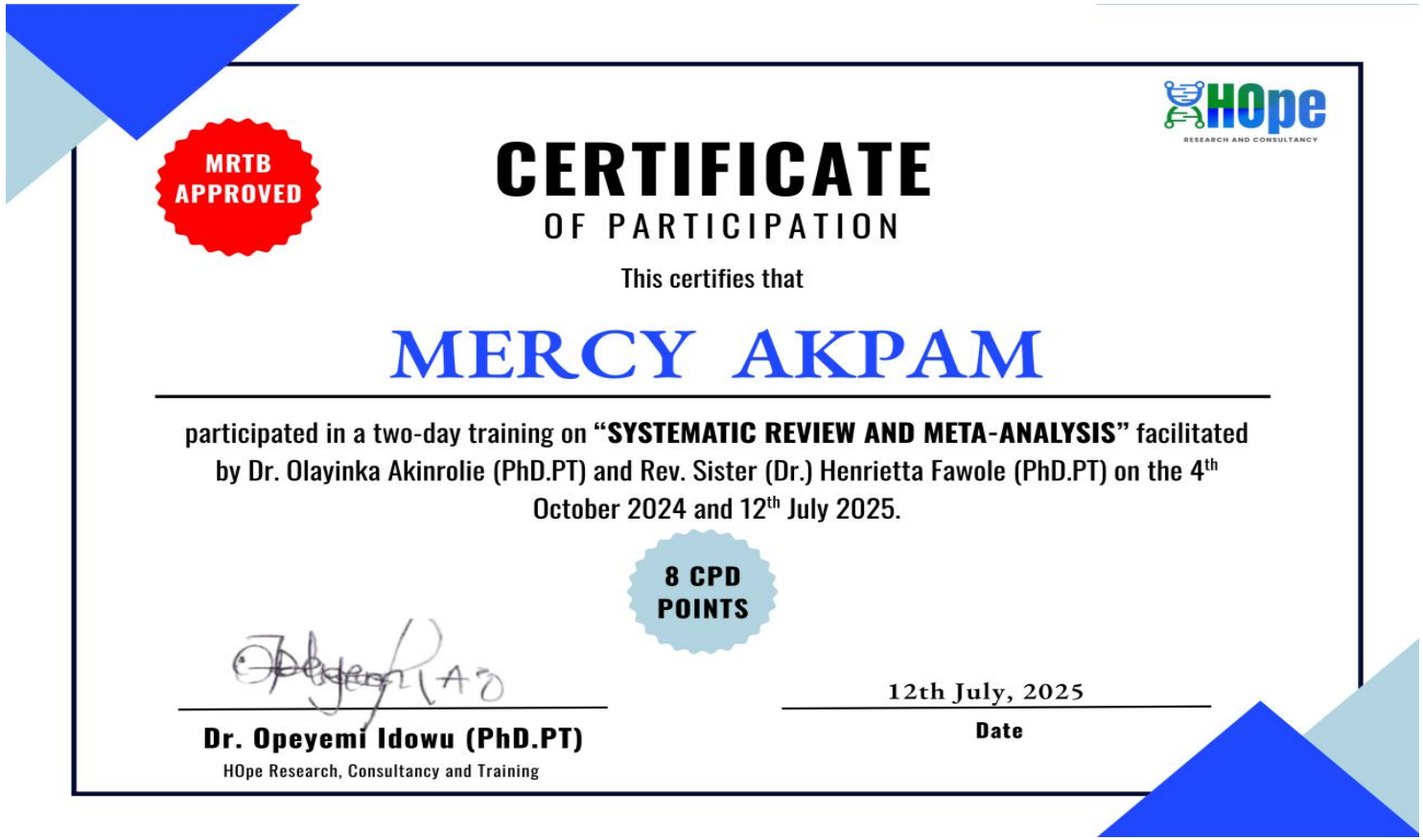
| | |
|---|---|
| | disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] = 513705<br><br>3 = ("barriers" or "facilitators" or "enablers").mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] = 261518<br><br>4 = 1 and 2 and 3 = 140<br><br>5 = limit 4 to (english language and humans) = 112 |
| APA PsycINFO<br><br>n= 79 | 1 = ("motivat* interview*" or "motivat* counsel*" or "MI" or "motivational interview*").mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] = 11697<br><br>2 = ("healthcare providers" or "healthcare workers" or "healthcare professionals" or "doctors" or "clinical psychologists" or "physiotherapists" or "nurses" or "social workers" or "occupational therapists").mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] = 155187<br><br>3 = ("barriers" or "facilitators" or "enablers").mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] = 104184<br><br>4 = 1 and 2 and 3 = 79<br><br>5 = limit 4 to (human and english language) = 79 |

| | |
|---|---|
| SCOPUS<br><br>n= 302 | ( TITLE-ABS-KEY ( "motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*" ) AND TITLE-ABS-KEY ( "healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational therapists" ) AND TITLE-ABS-KEY ( "barriers" OR "facilitators" OR "enablers" ) ) = 311<br><br>( TITLE-ABS-KEY ( "motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*" ) AND TITLE-ABS-KEY ( "healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational therapists" ) AND TITLE-ABS-KEY ( "barriers" OR "facilitators" OR "enablers" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) ) = 302 |
| CINAHL<br><br>n= 94 | S1 = TI ( "motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*" ) OR AB ( "motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*" ) = 18,397<br><br>S2 = TI ( "healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational therapists" ) OR AB ( "healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational therapists" ) = 382,541 |

| | |
|---|---|
| | S3 = TI ( "barriers" OR "facilitators" OR "enablers" ) OR AB ( "barriers" OR "facilitators" OR "enablers" ) = 114,629<br><br>S4 = S1 AND S2 AND S3 = 95<br><br>S5 = S1 AND S2 AND S3 Narrow by Language: - English = 94 |
| ProQUEST – 30th July 2025<br><br>(Grey Literature)<br><br>n= 25 | abstract("motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*") AND abstract("healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational therapists" ) AND abstract("barriers" OR "facilitators" OR "enablers") =25 |
| AJOL (30th July 2025)<br><br>(Grey Literature)<br><br>n=1 | motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*"<br><br>AND<br><br>"healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational therapists"<br><br>AND<br><br>"barriers" OR "facilitators" OR "enablers" |
| Google Scholar (5th August 2025)<br><br>(Grey Literature)<br><br>n=101 | motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*"<br><br>AND<br><br>"healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational |

| | |
|---|---|
| | therapists"<br><br>AND<br><br>"barriers" OR "facilitators" OR "enablers" |
| MINT website (8th August 2025)<br><br>(Grey Literature)<br><br>n=1 | motivat* interview*" OR "motivat* counsel*" OR "MI" OR "motivational interview*"<br><br>AND<br><br>"healthcare providers" OR "healthcare workers" OR "healthcare professionals" OR "doctors" OR "clinical psychologists" OR "physiotherapists" OR "nurses" OR "social workers" OR "occupational therapists"<br><br>AND<br><br>"barriers" OR "facilitators" OR "enablers" |

Appendix 2: Systematic Review Training Certificate

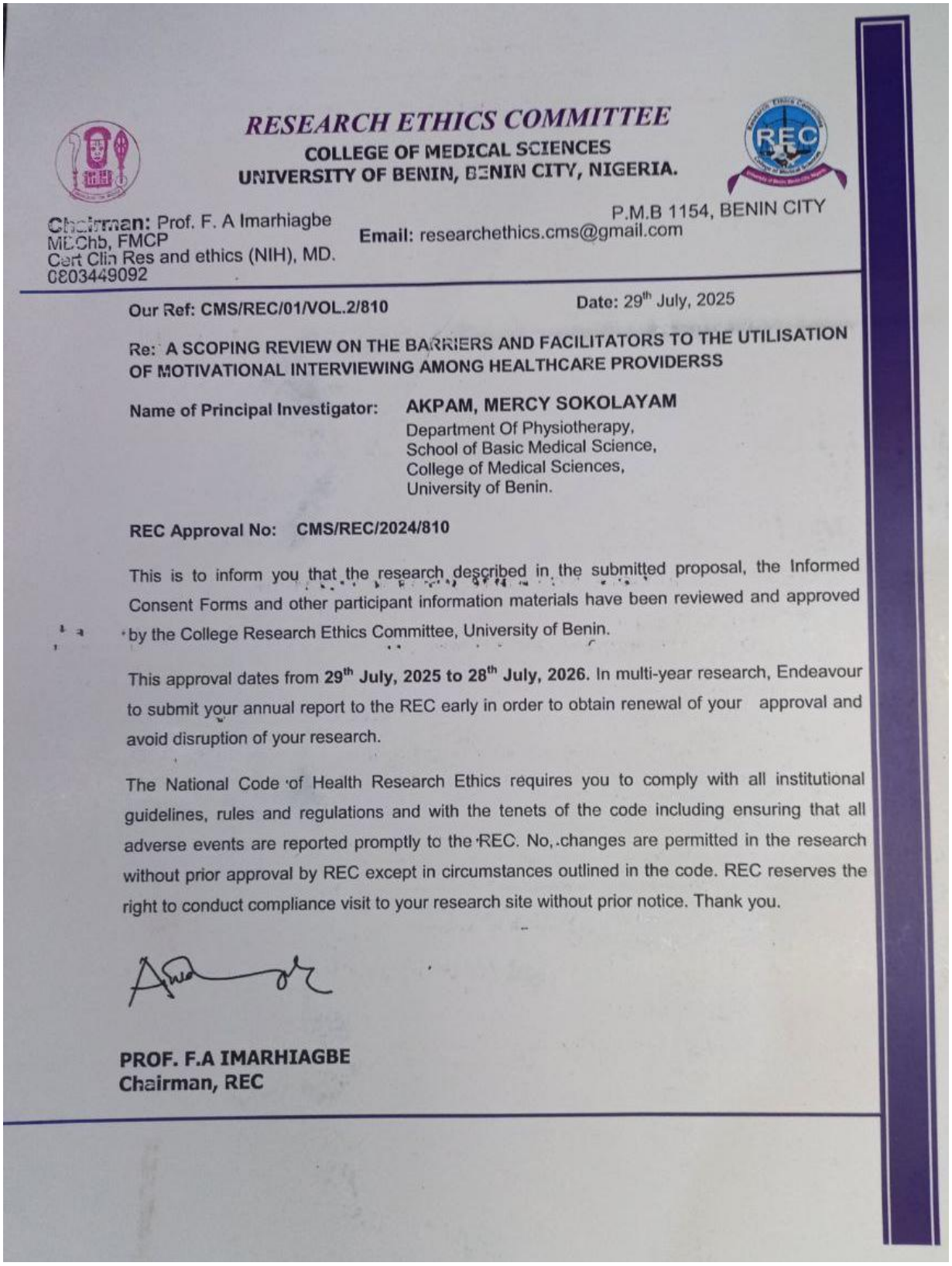


## Appendix 3: PRISMA Checklist for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist

| SECTION | ITEM | PRISMA-ScR CHECKLIST ITEM | REPORTED ON PAGE # |
|---|---|---|---|
| **TITLE** | | | |
| Title | 1 | Identify the report as a scoping review. | I |
| **ABSTRACT** | | | |
| Structured summary | 2 | Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives. | IV |
| **INTRODUCTION** | | | |
| Rationale | 3 | Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach. | 4-5 |
| Objectives | 4 | Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives. | 5 |
| **METHODS** | | | |
| Protocol and registration | 5 | Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number. | 30 |
| Eligibility criteria | 6 | Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale. | 30 |
| Information sources* | 7 | Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed. | 31 |
| Search | 8 | Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated. | 31 |
| Selection of sources of evidence† | 9 | State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review. | 31-32 |

| | | | |
|---|---|---|---|
| Data charting process‡ | 10 | Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators. | 32 |
| Data items | 11 | List and define all variables for which data were sought and any assumptions and simplifications made. | N/A |
| Critical appraisal of individual sources of evidence§ | 12 | If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate). | N/A |
| Synthesis of results | 13 | Describe the methods of handling and summarizing the data that were charted. | 32 |
| **RESULTS** | | | |
| Selection of sources of evidence | 14 | Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram. | 33-34<br>Fig:1 |
| Characteristics of sources of evidence | 15 | For each source of evidence, present characteristics for which data were charted and provide the citations. | 35-36 |
| Critical appraisal within sources of evidence | 16 | If done, present data on critical appraisal of included sources of evidence (see item 12). | N/A |
| Results of individual sources of evidence | 17 | For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives. | 37-70 |
| Synthesis of results | 18 | Summarize and/or present the charting results as they relate to the review questions and objectives. | 71-72 |
| **DISCUSSION** | | | |
| Summary of evidence | 19 | Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups. | 73-76 |
| Limitations | 20 | Discuss the limitations of the scoping review process. | 75-76 |
| Conclusions | 21 | Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps. | 76-77 |
| **FUNDING** | | | |
| Funding | 22 | Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review. | N/A |

# Appendix 4: Research Ethical Approval



**RESEARCH ETHICS COMMITTEE**
**COLLEGE OF MEDICAL SCIENCES**
**UNIVERSITY OF BENIN, BENIN CITY, NIGERIA.**

P.M.B 1154, BENIN CITY

**Chairman:** Prof. F. A Imarhiagbe
MBChb, FMCP
Cert Clin Res and ethics (NIH), MD.
08033449092

**Email:** researchethics.cms@gmail.com

**Our Ref: CMS/REC/01/VOL.2/810** **Date:** 29th July, 2025

**Re: A SCOPING REVIEW ON THE BARRIERS AND FACILITATORS TO THE UTILISATION OF MOTIVATIONAL INTERVIEWING AMONG HEALTHCARE PROVIDERSS**

**Name of Principal Investigator:** **AKPAM, MERCY SOKOLAYAM**
Department Of Physiotherapy,
School of Basic Medical Science,
College of Medical Sciences,
University of Benin.

**REC Approval No: CMS/REC/2024/810**

This is to inform you that the research described in the submitted proposal, the Informed Consent Forms and other participant information materials have been reviewed and approved by the College Research Ethics Committee, University of Benin.

This approval dates from **29th July, 2025 to 28th July, 2026.** In multi-year research, Endeavour to submit your annual report to the REC early in order to obtain renewal of your approval and avoid disruption of your research.

The National Code of Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the code including ensuring that all adverse events are reported promptly to the REC. No changes are permitted in the research without prior approval by REC except in circumstances outlined in the code. REC reserves the right to conduct compliance visit to your research site without prior notice. Thank you.

**PROF. F.A IMARHIAGBE**
**Chairman, REC**