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Utilization And Maintaining The Spirit Of Motivational Interviewing In SagePlus Lifestyle Interventions

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UTILIZATION AND MAINTAINING THE SPIRIT OF MOTIVATIONAL INTERVIEWING IN SAGE*PLUS* LIFESTYLE INTERVENTIONS

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Abstract

UTILIZATION AND MAINTAING THE SPIRIT OF MOTIVATIONAL INTERVIEWING IN SAGE*PLUS* LIFESTYLE INTERVENTIONS

Utilizing a descriptive quantitative design to guide data collection and analysis, 11 of the 14 clinics in the State of Minnesota that participate in the Sage*Plus* program were selected by the Minnesota Department of Health (MDH) to participate in this study. The population for this study was the 22 healthcare professionals who were providing the lifestyle interventions in those clinics. The purpose of this study was to determine if the Sage*Plus* healthcare professionals who are providing lifestyle counseling interventions were using Motivational Interviewing (MI) with Sage*Plus* clients and if the healthcare professionals were maintaining the spirit of MI throughout these interactions. The Behavior Change Counseling Index (BECCI) tool was utilized to assess the healthcare professional's competency in using MI techniques. While all of the healthcare professionals providing demographic information for the study reported that they used MI when providing lifestyle counseling, only one healthcare professional spoke for less than half of the time, and only 50% of the participants had a score reflecting competency. This indicates that the healthcare professionals do not fully adhere to the principles of MI. "MI is more about listening than telling, about evoking rather than instilling, and empowering the client to make the change" (Rollnick, Miller, & Butler, 2007, p. 3). The information gained from this study can be used to improve the effectiveness of MI-based interventions to guide lifestyle behavior changes in the clients of the MDH's Sage*Plus* program. In addition, study findings can be used to provide ongoing support, feedback,

and continuing education necessary to promote effective Motivational Interviewing by the healthcare professionals who are providing Sage*Plus* lifestyle counseling.

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CHAPTER I

INTRODUCTION

A challenge for healthcare professionals is to "motivate and facilitate health behavior change" (Shinitzky & Kub, 2001, p. 179). Effective interpersonal skills are essential in order to create a supportive environment to promote health. "While noneffective encounters often result in barriers to optimal care, motivating individuals to move toward a state of action leads to improved health outcomes" (Shinitzky & Kub, 2001, p. 179).

Health promotion and disease prevention have become key focus areas in healthcare. The leading cause of death among women and a primary contributor to morbidity and mortality in the United States is cardiovascular disease [CVD] (Farrell et al., 2009; Khare et al., 2009). Most often, complications from CVD are compounded by lifestyle behaviors. Farrell et al. reported that "low-income, less educated, uninsured, and minority women have limited access to health services and are more likely to have poor nutrition, to engage in limited physical activity, and to smoke cigarettes" (p. 733). When effective lifestyle intervention programs are implemented and focused on increasing physical activity, improving eating habits, and reducing or eliminating smoking, thus preventing chronic disease, they hold the promise of reducing morbidity and mortality, reducing health disparities, and promoting health (Farrell et al., 2009; Farris, Haney, & Dunet, 2004).

In 1991, Minnesota started the Sage Screening Program, a statewide comprehensive breast and cervical cancer screening program with funds from the Centers

for Disease Control and Prevention (CDC). In 1995, the Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) program was started by the CDC in response to the absence of lifestyle intervention programs available to meet the needs of low-income, under- or uninsured, middle-aged women (Khare et al., 2009). The vision of the WISEWOMAN public health program is that any woman can access preventive health services and gain the wisdom to improve her health (CDC, 2010). The goal is to improve the health of midlife, uninsured women by providing cardiovascular screening and lifestyle intervention (Farris, Will, Khavjou, & Finkelstein, 2007). Reaching over 84,000 women in need, there are currently 21 CDC funded WISEWOMAN projects in 20 states and tribal organizations designed to reduce CVD by providing lifestyle interventions for identified risk factors (CDC, 2010). "Lifestyle intervention has been shown by various studies to be effective in improving the CVD risk profile, including blood pressure, serum cholesterol levels, smoking status, diabetes, and overweight/obesity" (Hayashi, Farrell, Chaput, Rocha, & Hernandez, 2010, p. 1130).

In 2004, as part of the CDC's WISEWOMAN project, the Minnesota Department of Health (MDH) initiated the Sage*Plus* program. Clinics that participate in the SAGE program provide screening for low-income eligible women ages 40 to 64 who have no insurance or are underinsured. "The mission of the Sage*Plus* program is to provide women with knowledge, skills, and opportunities to improve their diet, physical activity, and other life habits to prevent, delay, or control cardiovascular and other chronic diseases" (MDH, 2010). Screening for CVD risk factors include blood pressure measurement, serum lipid levels, serum glucose, and Body Mass Index (BMI).

The MDH encourages healthcare professionals who are providing Sage*Plus* lifestyle counseling to use motivational interviewing (MI) when carrying out lifestyle interventions to encourage healthy dietary selection, physical activity, and smoking cessation. MI was first described in 1983 by Drs. William R. Miller and Stephen Rollnick, as a brief intervention approach to treat individuals with alcoholism. Their current, updated definition is "Motivational interviewing is a collaborative, person-centered form of guiding to elicit and strengthen motivation for change" (Miller & Rollnick, 2009, p. 137).

Over the years, MI has shown potential to be a successful counseling technique which is used to address a broad range of behavioral issues (Soderlund, Nordqvist, Angbratt, & Nilsen, 2009). MI uses a therapeutic approach with its primary goal of resolving ambivalence. Ambivalence relates to the "client's experience of conflicting thoughts and feelings about a particular behavior or change" (Sciacca, 2007, p. 22). The MI model uses a collaborative partnership approach that is empathic and involves the exchange of information to identify discrepancies between the client's personal values and the behavior problem (Miller & Rollnick, 2002). "MI works by activating patients' own motivation for change and adherence to treatment" (Rollnick, Miller, & Butler, 2007, p. 5).

The basic principles of MI include expressing empathy, developing discrepancy, rolling with resistance, and supporting self-efficacy (Rollnick et al., 2007). "These four principles can be remembered by the acronym RULE: Resist, Understand, Listen, and Empower" (Rollnick et al., 2007, p. 7). Resisting the Righting Reflex addresses the urge to correct another's course of action. Understanding the client's motivation by listening

empathetically is most likely to trigger behavior change. "You are better off asking client why they would want to make a change and how they might do it rather than telling them that they should" (Rollnick et al., 2007, p. 9). Quality listening also involves speaking less than half the time and hearing what the client is saying. "It is increasingly clear that outcomes are better when patients take an active interest and role in their own health care" (Rollnick et al., 2007, p. 10). Empowerment helps clients explore how they can make a difference in their own health.

The first role of the interviewer is to understand the client's individual motivation. The second is intentional listening and the third is empowering the client. Once it is determined what the client wants by asking them, information is given about available options. Listening to what makes sense to the client and respecting what the client wants to do allows the healthcare professional to offer help accordingly (Rollnick et al., 2007). Programs which have provided MI training for their healthcare staff may be interested in evaluating outcomes to determine if healthcare staff is using MI techniques and maintaining the spirit of MI (Hohman & Matulich, 2010).

The MDH has sponsored MI continuing education (CE) sessions for the healthcare professionals who are providing Sage*Plus* lifestyle counseling to increase their knowledge and skill in the utilization of MI in their clinical practice. These MI training sessions have been offered as one- or two-day seminars. The healthcare professionals interpret screening results and assess dietary habits and physical activity levels of the Sage*Plus* participant. The objective is to identify the relationship between the client's health status and their lifestyle practices as well as to offer "education, support, and incentives to help women make positive health changes in their lives" (MDH, 2010).

Assessing their readiness to change allows for discussion of intervention options to help them reach their personal goals. MI is unique from other counseling methods which involve the healthcare professional advising the patient on behavior change options (van Nes & Sawatzky, 2009). Using a nondirective counseling approach, MI focuses on preparing people to change behavior by using skills of empowerment, ambivalence, and reflective listening (Rubak, Sandbaek, Lauritzen, Borch-Johnsen, & Christensen, 2009).

Following the initial lifestyle intervention counseling session, the Sage*Plus* clients receive at least two follow-up phone calls and monthly mailings (CDC, 2010). Developing a collaborative partnership focused on helping clients recognize and identify problems promotes behavior change and positive health outcomes. It is important to evaluate public health program interventions to ensure that the program is making the best use of limited resources (Finkelstein, Wittenborn, & Farris, 2004). The impact of these educational sessions on client skill development as well as utilization of MI by these healthcare professionals is unknown.

Problem Statement

The MDH encourages healthcare professionals to utilize MI during the Sage*Plus* lifestyle counseling appointments and follow-up phone calls. The MDH has sponsored one- and two-day continuing education seminars to help develop the healthcare professionals' MI skills and to encourage them to use MI to facilitate lifestyle changes. However, it is unknown if healthcare professionals who are providing the Sage*Plus* lifestyle counseling are using MI or if they are using it effectively.

Purpose of the Study

The purpose of this study was to determine if Sage*Plus* healthcare professionals who are providing lifestyle interventions were using MI with Sage*Plus* clients and if the healthcare professionals were maintaining the spirit of MI throughout these interactions. In addition to asking the questions of the study's purpose, the research questions asked if the healthcare professionals utilizing MI techniques were maintaining the spirit of MI by listening empathically, did healthcare professionals speak for less than half the time, and did healthcare professionals encourage the client to talk about their current behavior and desired change? Information gained from this study can be used to enhance the spirit of MI currently being used by Sage*Plus* healthcare professionals to promote healthy lifestyle changes and positive outcomes.

Research Questions

1. Are healthcare professionals utilizing Motivational Interviewing techniques when providing Sage*Plus* lifestyle counseling?
2. When utilizing Motivational Interviewing techniques, are healthcare professionals maintaining the spirit of Motivational Interviewing by listening empathically?
3. When using Motivational Interviewing techniques, do healthcare professionals speak for less than half the time?
4. When using Motivational Interviewing, do healthcare professionals encourage the client to talk about their current behavior and desired change?

Definition of Terms

- Change talk: Represents movement towards change and is highly influenced by counseling style and are shown by statements by the client revealing consideration of, motivation for, or commitment to change. In MI, healthcare professional's goal is to guide the client to expressions of change talk (Sciacca, 2007).
- Empathetic listening: The approach to listening empathically is by responding to another person through a reflective and nonjudgmental way. The goal is to improve mutual understanding and trust between the two individuals.
- Motivational Interviewing "is a skillful clinical style for eliciting from patients their own good motivations for making behavior changes in the interest of their health" (Rollnick et al., 2007, p. 6). Clients are encouraged to focus and explore personal goals and identify the opposing attitudes or emotions to obtain these goals.
- MI utilization: Using a respectful and nonjudgmental manner, healthcare professionals using lifestyle counseling help clients identify their ambivalence to change, facilitate expressing their reasons for and against behavioral changes, encourage reflection on how current health behavior may conflict with personal health goals, and examine how current behavior or health status affects the ability to achieve these goals (McCarley, 2009).
- Spirit of Motivational Interviewing: Collaboration, evocation, and honoring the client's autonomy are known as the spirit of MI. The spirit and style are central to the approach of MI. "Clinicians and trainers who become too

focused on matters of technique can lose sight of the spirit and style" (Rollnick & Miller, 1995, p. 325). In order to stay true to the spirit of MI, healthcare professionals should use open-ended questions, affirmations, reflections, summarization, and elicit client change talk throughout their interactions.

Assumptions

1. MI is an effective counseling method for preparing people to assist people with healthy behavior change.
2. Sage*Plus* providers are attempting to utilize MI techniques with Sage*Plus* participants.
3. Sage*Plus* providers are attempting to maintain the spirit of MI when engaging in lifestyle counseling interventions.

Summary

Little is known regarding the utilization of MI with Sage*Plus* clients. The MDH is providing reimbursement to clinics providing Sage*Plus* lifestyle counseling. Therefore, the purpose of this study was to identify to what extent MI is being used in these client interactions, and whether or not the spirit of MI is guiding the interaction. Conclusions will help to identify the need for additional on-going support of MI skills.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this study was to determine if Sage*Plus* healthcare professionals who are providing lifestyle interventions were using MI with Sage*Plus* clients and if the healthcare professionals were maintaining the spirit of MI throughout these interactions. In addition to asking the questions of the study's purpose, the research questions asked if the healthcare professionals utilizing MI techniques were maintaining the spirit of MI by listening empathically, did healthcare professionals speak for less than half the time, and did healthcare professionals encourage the client to talk about their current behavior and desired change?

The online library at Minnesota State University, Mankato was used to locate peer-reviewed journal articles relating to MI. Search terms included *motivational interviewing and effectiveness and learning, MI and behavior change, maintaining the spirit of motivational interviewing, MI and health promotion and disease prevention,* and *WISEWOMAN.* The review of the literature presents the background of MI, the effectiveness of MI to promote lifestyle changes, and what it means to maintain the spirit of MI. Carl Rogers' theory of learning and MI principles form the conceptual framework for this study and are reviewed in this chapter.

Motivational Interviewing

MI is a counseling method to enhance personal motivation for change which is patient-oriented and has been found to be suitable for brief office visits to improve adherence to diet, exercise, and smoking behavior (Jansink et al., 2010). The art of MI is

a dance between two individuals suspending judgment and avoiding a confrontational style thereby minimizing defensive reactions by the client (Shinitzky & Kub, 2001).

Farrell et al. (2009) examined methods and identified strategies to utilize effective interventions that motivate behavior change and reduction in cardiovascular risks in low-income Hispanic women who participate in the California-based WISEWOMAN program. The main objective was to evaluate the short-term impact of the Heart of the Family program's lifestyle interventions which are used to "improve nutrition and physical activity while reducing CVD risk factors" (Farrell et al., 2009, p. 733). The short-term effectiveness of lifestyle interventions on behavioral changes and cardiovascular health was revealed through a randomized controlled study at four community health centers in Los Angeles and San Diego, California (Farrell et al., 2009). There were two study groups, one which incorporated lifestyle interventions and one which did not. Both groups targeted Hispanic women who were at risk of developing CVD and were similar demographically. Over an 18-month period more than 1,000 participants attended three lifestyle interventions at 1, 2, and 6 months after the initial screening (Farrell et al., 2009). While using intervention materials that were available in Spanish in addition to English, combined with using bilingual community health workers who provided individual face-to-face counseling, strategies were designed to provide evidence-based information on the effectiveness of lifestyle intervention to identify healthy and unhealthy dietary behaviors and physical activity to reduce CVD risk (Farrell et al., 2009).

Overall, 40.5% of the Heart of the Family participants were found to be more aware of their CVD risk factors and were receiving appropriate treatment at completion

of the program compared to national estimates of 20.7% for Hispanics (Farrell et al., 2009). Women in the enhanced lifestyle intervention group experienced more improvements in health behaviors such as eating habits and physical activity, as well as in their 10-year CVD risk, compared to those in the usual care group. The study was found to meet the health needs of Hispanic women by using lifestyle interventions to reduce modifiable risk factors associated with CVD (Farrell et al., 2009).

"MI is an evidence-based counseling approach that healthcare providers can use to help patients adhere to treatment recommendations" (Levensky, Forcehimes, O'Donohue & Beitz, 2007, p. 50). Levensky et al. reviewed many studies that revealed promising effects of lifestyle change and improved health outcomes when using MI compared with other standard approaches such as client education and counseling. Literature indicates that the single most important public health problem facing healthcare professionals today may be the failure of clients to follow their prescribed treatment regimens, revealing that rates of nonadherence to treatment recommendations are 30 to 60% for chronic illness and 80% for illness prevention (Levensky et al., 2007). Motivating clients to make behavioral changes is an important task for the healthcare professional and MI has shown promise as a counseling method for promoting change (Levensky et al., 2007).

Rubak et al. (2009) sought to evaluate whether MI had beneficial effects when added to intense polypharmacy treatment of type 2 diabetic clients. A randomized controlled trial included 65 general healthcare professionals and 265 type 2 diabetic clients. The general healthcare professionals were randomly divided into two groups, one with and one without MI training. Sum scores from two questionnaires which measured

outcomes were evaluated at a 1 year follow-up and had a response rate of 87% (Rubak et al., 2009). Clients from the MI intervention group were significantly more autonomous in their choice of action toward being motivated and making behavioral changes than patients from the control group (Rubak et al., 2009). "The autonomous style represents the most self-determined form of motivation and has consistently been associated with behavioral change and positive health outcomes" (Rubak et al., 2009, p. 175).

Effectiveness of Motivational Interviewing

Motivation is strongly influenced by the interpersonal style of the helping professionals. In 2005, Rubak, Sandbaek, Lauritzen, and Christensen completed a systematic review and meta-analysis of 72 randomized controlled trials which found that MI outperformed advice giving to promote behavior change in clients who were unmotivated or resistant to change in 80% of the studies. When "eliciting and reinforcing the client's belief in their ability to carry out and succeed in achieving a specific goal", it is essential that the spirit of MI is maintained (Rubak et al., 2005, p. 306). The meta-analysis further revealed that MI can and should be used. "Motivational interviewing had a significant and clinically relevant effect in approximately three out of four studies, with an equal effect on physiological (72%) and psychological (75%) diseases" (Rubak et al., 2005, p. 305). While using MI in brief encounters of 15 minutes, 64% of the studies showed an effect. "More than one encounter with the patient ensures the effectiveness of MI" (Rubak et al., 2005, p. 305). It was found essential to base MI on making the clients themselves aware of the potential for change in behavior as it will result in improved health (Rubak et al., 2005).

In 2010, Lundahl, Kunz, Brownell, Tollefson, and Burke completed a meta-analysis of 25 years of empirical studies investigating MI's contribution and effect on counseling outcomes and how MI compares with other interventions. There were 119 studies with targeted outcomes which included substance use, health-related behaviors, and addictive treatment variables. Several practical questions evolved from this meta-analysis. Does MI work? The analyses "strongly suggest that MI does exert small though significant positive effects across a wide range of problem domains" (Lundahl et al., 2010, p. 150). Another question asked if MI should be considered for an agency to adopt; overall, the data suggested that it should. "Adopting MI is very likely to produce a statistically significant and positive advantage for clients and may do so in less time" (Lundahl et al., p. 152). Is MI successful in motivating clients to change? The answer was yes. "MI significantly increased clients' engagement in treatment and their intention to change, the two variables most closely linked to motivation to change" (Lundahl et al., 2010, p. 152). These results support the overall aim of MI which is to improve collaboration with a client, to minimize resistance, to express empathy, and to build motivation to change while exploring ambivalence about the desired change (Lundahl et al., 2010). Results determined that while MI was found to contribute to counseling efforts, outcomes are influenced by healthcare professional and delivery factors (Lundahl et al., 2010).

Existing literature determined lack of training and knowledge of how to use MI as the reason lifestyle counseling in general practice was found to be limited (Lambe & Collins, 2009). Lambe and Collins used a qualitative design study consisting of primary care healthcare professionals from urban and rural Ireland split into six focus groups. An

objective of this study was to identify the current strategies used by these general healthcare professionals when promoting healthy lifestyle choices with their clients. While Lambe and Collins found that general healthcare professionals indicated a preference for using a more client-centered approach, it was challenging for them to change from the medical model of health education allowing clients to exercise personal choice through lifestyle counseling. Lambe and Collins recommended lifestyle counseling training for all healthcare professionals, focusing on brief intervention skills and lifestyle counseling strategies to reduce client's resistance to change. While lifestyle counseling was perceived to be an important component of healthcare professional-client interactions, "there was limited evidence in the present research to suggest that an empowering, client-centered and collaborative approach to lifestyle counseling is commonplace" (Lambe & Collins, 2009, p. 222). This emphasizes the inquiry of this study of examining if health professionals are using MI and how effective are they using it. In order for MI to be effective, the healthcare professional must be able to assess and respond to the client's level of motivation or resistance to change. The healthcare professional and the client "collaboratively arrive at an understanding of whether the client is ready to make lifestyle changes" (MDH, 2010).

Maintaining the Spirit of Motivational Interviewing

MI has a relational component which focuses on empathy and the interpersonal spirit of MI, both of which minimize client resistance (Lundahl et al., 2010). Interpersonal relationship encompasses empathetic listening and using nonjudgmental and collaborative decision-making while evoking or eliciting the client to do most of the talking while honoring their autonomy and ability to make decisions. Miller and Rollnick

(2002) state that MI is more than a set of techniques; it is a way of being with people, and this collaboration is often referred to as the spirit of MI. "MI assumes that behavior change is affected more by motivation than information" (Soderlund et al., 2009, p. 443). Rollnick et al. (2007) further explain "the way in which you talk with patients about their health can substantially influence their personal motivation for behavior change" (p. 6).

The MI spirit incorporates collaboration, evocation, and autonomy. With collaboration one conveys respect for the client's ideas and encourages autonomy. Ideas are explored and the aim is to increase the client's confidence, evoke reasons for change, and instill beliefs that change is possible. This is different from when the healthcare professional is seen as the expert and directs or teaches the client how to change (Hohman & Matulich, 2010). The client's understanding that the answers for how to change lies within themselves and the answers are brought to mind by the healthcare professional, or evoked, instead of instilling methods of how this can occur. An important role of the healthcare professional is to help clients see that the client is in control of their lives. "Autonomy/support is when the counselor affirms the client's right and capacity for self-direction and facilitates informed choice" (Hohman & Matulich, 2010, p. 231).

Hohman and Matulich's study validated a measure of the three spirit factors by using a 10-item scale to evaluate healthcare staff interactions within two residential treatment programs which included 227 clients. These healthcare professionals were previously trained in MI to "encourage that the MI spirit be used in interactions with clients by all healthcare staff members" (Hohman & Matulich, 2010, p. 230). This study was the initial validation of the Motivational Interviewing Measure of Staff Interaction

(MIMSI) instrument. It was not determined from this scale if the healthcare staff was using all of the MI skills (collaboration, evocation, and autonomy/support) during their interactions with clients or a more generalized client-centered counseling approach. It may be useful for future studies to explore if MI spirit is related to client retention and positive outcomes by combining individual MI scores using the MIMSI instrument and having a measure that can be given to clients to reveal how clients perceive their interactions with healthcare staff (Hohman & Matulich, 2010).

The role of being an effective healthcare professional should include "an understanding of the interpersonal skills that can be used to motivate individuals to move toward optimal health" (Shinitzky & Kub, 2001, p. 179). Moyers, Miller, and Hendrickson (2005) evaluated healthcare professionals' interpersonal skill and client involvement during MI sessions for treating substance abuse. Their study found that healthcare professionals' "interpersonal skills directly facilitate client collaboration during MI sessions" (Moyers et al., 2005, p. 595). The findings from their study support Miller and Rollnick's emphasis that healthcare professionals' adherence to the spirit of MI, rather than to the specific techniques for implementing MI, directly facilitates client collaboration during MI sessions (Moyers et al., 2005).

Miller, Yahne, Moyers, Martinez, and Pirritano (2004) focused on methods for helping substance abuse healthcare professionals learn the clinical method of MI. "The study provided support for the efficacy of training in MI" (Miller et al., 2004, p. 1060). While healthcare professionals attending a two-day workshop showed significant gains in MI proficiency, the efficacy of these new educational skills wanes if on-going coaching and support is not maintained (Miller et al., 2004). Clients are generally more motivated

to make change when it is based on their own decisions and choices. "Feedback that is specific and is compared with behavioral goals generally favors performance improvement" (Miller et al., 2004, p. 1052). Miller et al. found more change talk and less resistance in clients of MI-trained counselors and this continued for those counselors who received follow-up and coaching.

Conceptual Framework and MI Principles

Carl Rogers' theory of learning was developed from his views about psychotherapy and a humanistic approach to psychology. Rogers believed that significant learning is only possible when the individual has confidence in his or her ability to learn. "Insights and methods of Carl Rogers are foundational to the practice of MI" (Miller & Rollnick, 2009, p. 134). Healthcare professionals who utilize MI in their clinical practice seek to build a therapeutic relationship similar to the one described by Rogers' person-centered theory, which promotes a strong, collaborative relationship with clients and to minimize their resistance to change (Lundahl & Burke, 2009; Soderlund et al., 2009). Key components to this concept and of MI endorse the use of active listening to engage the client in the change process. "In MI, the counselor strategically listens for, elicits, and responds selectively to certain forms of speech that are collectively termed 'change talk', seeking to increase the clients' motivation for behavior change" (Miller & Rollnick, 2009, p. 135). Healthcare professionals using MI effectively acknowledge it is the client who must identify the need to change for change to occur and the climate of the exchange should be nonjudgmental, caring, and encouraging. The role of the healthcare professional is to facilitate the learning. Using the four basic principles of MI and reflective listening, open-ended questions, affirmation, and supporting statements can

accomplish these goals. Client resistance may be a result of a client-practitioner relationship that lacks collaboration, empathy, or client autonomy. Empathy is key to delivering and being effective at motivating the client (Jansink et al., 2010).

Summary

MI is a method of counseling clients and is viewed as a useful intervention strategy to motivate lifestyle change and disease management. In addition, MI has better behavior change outcomes than traditional advice giving in clients who are resistant to change (Rubak et al., 2005; van Nes et al., 2009). "Research has shown that a client's motivation to change is significantly influenced by the therapist's relational style" (Lundahl & Burke, 2009, p. 1233). A healthcare professional's interpersonal skills have been found to directly facilitate client collaboration during MI sessions and support the notion that the healthcare professional's way of being or adherence to the spirit of MI are critical to evoking desirable client behaviors (Moyers et al., 2005). It has been speculated that MI most likely varies on aspects such as duration and number of client-healthcare professional encounters, the healthcare professional's MI training, the ability to identify the client's individual motivation to change, and the client-healthcare professional relationship. The literature implies that MI is an effective method to promote healthy lifestyle changes, and on-going coaching and feedback for healthcare professionals are essential to maintain the spirit of MI in Sage*Plus* lifestyle interventions.

CHAPTER III

METHODOLOGY

The purpose of this study was to determine if Sage*Plus* healthcare professionals who are providing lifestyle interventions were using MI with Sage*Plus* clients and if the healthcare professionals were maintaining the spirit of MI throughout these interactions. In addition to asking the questions of the study's purpose, the research questions asked if the healthcare professionals utilizing MI techniques were maintaining the spirit of MI by listening empathically, did healthcare professionals speak for less than half the time, and did healthcare professionals encourage the client to talk about their current behavior and desired change? This chapter describes the design, sample, setting, ethical considerations, measurement, demographics, data collection, data analysis, and limitations.

Design

This study utilized a descriptive quantitative design to guide data collection and analysis. Descriptive studies are utilized to learn about an area of interest or specific topic as it exists and can be used to identify any problems (Burns & Grove, 2009). The strength of a descriptive design is that it allows a researcher to gather data and provides a picture of the phenomena of concern; this data can then be used for further research (Burns & Grove, 2009). The weakness of descriptive design is that it can only describe the data and it does not allow for testing the data for statistical significance. Data collected is used for description only; there are no treatments. The variables for this study were whether the healthcare professionals providing Sage*Plus* lifestyle

interventions are utilizing MI, the degree to which the spirit of MI is being maintained, and if the healthcare professionals speak for less than half the time while encouraging the client to discuss their current behavior and desired change.

Sample/Setting

There are 14 clinics in the State of Minnesota that participate in the Sage*Plus* program. Eleven of those 14 clinics were selected by the MDH to participate in this study. The population for this study was the 22 healthcare professionals who were providing the Sage*Plus* lifestyle counseling interventions in those clinics. The assumption was that lifestyle counseling was conducted in the spirit of MI and these healthcare professionals attended the MDH MI continuing education training sessions to develop basic skills in MI. The goal was to assess all 22 healthcare professionals who were providing the Sage*Plus* lifestyle interventions at the 11 clinics selected by the MDH for participation in this study.

Ethical Considerations

Institutional Review Board approval was received for this study from the MDH and Minnesota State University, Mankato, Institutional Review Boards [IRB] (see Appendices A and B) prior to data collection.

Phone contact was made by the researcher to introduce potential participants to the study and request their participation in the study. Each potential participant was encouraged to review the informed consent prior to date of observation. The consent form described the intent of the study, benefits, potential physiological risks to both healthcare professional and client being observed, their rights regarding participation, and risk of altered provider-patient interaction due to observer influence. No physical risk

has been identified. Two copies of the informed consent form were received by the healthcare professionals a minimum of 3 days prior to the site visit so that they had time to review and complete them prior to the start of the researcher's observation session (see Appendix C). Upon arrival at the clinic, the researcher introduced themselves to the healthcare professional, verbally reviewed the consent form and the intent of the study, the benefits, potential risks of participating, and their rights regarding participation. The healthcare professionals were given the opportunity to ask questions about their participation and address any concerns they had prior to being observed interacting with the Sage*Plus* client.

If the healthcare professional agreed to participate in the study, a signed copy of the informed consent was returned to the researcher. The healthcare professional retained the other copy. To protect confidentiality, the same alphanumeric code was assigned to each healthcare professional and each of their questionnaires. The key to the alphanumeric code was kept on a password protected computer by the researcher. Individual scores were given to the MDH for program evaluation purposes only. Any written reports will present aggregate data.

Consent forms will be stored in the primary researcher's locked office for 2 years following completion of this study and then will be destroyed. Collected data will be stored in a password protected computer by the researchers. Only the researchers and the MDH will have access to the collected data.

In order to protect the Sage*Plus* client, verbal consent was obtained upon arrival to the room in which the healthcare professional/client interactions were observed (see Appendix D). No Sage*Plus* client data was recorded or collected.

Instruments

The instrument used for this study was the Behavior Change Counseling Index (BECCI) tool which has 11-items developed by Lane (2002) at the University of Wales College of Medicine (see Appendix E). The instrument was designed to assess the skills of an individual healthcare professional's use of MI Behavior Change Counseling. The instrument's overall internal consistency and reliability as measured by Cronbach's coefficient is .71 (Lane et al., 2005, p. 169). The 11 items of the BECCI tool have an individual coefficient alpha ranging from .64 to .74. This evaluation of the BECCI tool's reliability and validity testing was conducted in 2002 by Lane et al. (2005) and found to be acceptable.

Each item is accompanied by a 5-point Likert scale to indicate the degree, 0 (*not at all*) to 4 (*a great extent*), to which the action was carried out. The Likert scale determines the opinion or attitude of a subject regarding a declarative statement. A score of 3 or more is considered competent in the use of MI (see Appexdix E).

The main purpose of the 11 items is to provide the observers and healthcare professionals a reflection of the client/healthcare professional interaction (Lane, 2002). Through these interactions, the healthcare professional's consulting behavior and attitude during the use of behavior change counseling, which is an adaptation of MI, was measured. Permission has been granted universally by Dr. Lane (2002) to utilize the BECCI tool for use in rating and evaluation of skills involved in behavior change counseling. This section states:

> "To use the BECCI, the rater should have a good basic knowledge of Behavior Change Counseling and the checklist. To ensure this, raters should undertake

background reading, watch a training video and gain an understanding of how the checklist works" (Lane, 2002, p. 2).

This study was part of a larger study with three researchers collecting data. To increase the interrater reliability, basic knowledge of Behavior Change Counseling was obtained, which included a training video and understanding of how to use the BECCI tool. Each researcher scored a MI training vignette utilizing the BECCI instrument. Scoring was compared and a discussion was held to get all researchers scoring similarly. Differing answers were discussed in detail until consensus among the researchers was obtained. This process was repeated until the researcher-designated scoring of all BECCI tool questions were within 1 point of each other on the same vignette.

Additionally, the healthcare professionals were given an 11-item demographic questionnaire (see Appendix F) including questions regarding educational level, years of experience, profession, length and type of previous MI training, and if they believe that they are using MI in their lifestyle counseling.

Data Collection

This study was part of a larger project evaluating the use of MI in Sage*Plus* lifestyle counseling interventions. All of the researchers involved in the larger project visited a minimum of three of the designated clinics to collect data for each part of the project. A list of clinics and potential healthcare professionals was received from the MDH. Clinic managers were contacted to schedule dates and times that were mutually agreeable to the clinic, healthcare professionals carrying out the Sage*Plus* lifestyle interventions, and researcher.

The informed consent, demographic questionnaire, and PMAAQ (which is being used in another arm of this project) were received by the potential healthcare professionals a minimum of 3 days prior to the scheduled clinic visit for the Sage*Plus* lifestyle counseling session. Upon meeting the potential healthcare professionals, the informed consent was reviewed and the potential healthcare professionals were given the opportunity to ask questions. Their informed consent form, demographic questionnaire, and PMAAQ were then collected from them. If they had not completed the demographic questionnaire or PMAAQ, they were given the opportunity to complete them on the day of the visit and return them to the researcher. If they did not have time to complete them that day, a self-addressed, stamped envelope was given to them in order to encourage return of the forms to the researcher.

Upon entering the exam room with the healthcare professional, a verbal consent was received from the Sage*Plus* client allowing the researcher to observe the healthcare professional. The researcher quietly observed a minimum of one Sage*Plus* lifestyle counseling session for each healthcare professional in the study. During the observation, the researcher utilized the BECCI tool for the evaluation of the use and effectiveness of MI. When the session was finished, the BECCI was then inserted into the envelope with the other questionnaires.

The questionnaires were kept at the researcher's home in a locked file cabinet until they were given to the principle investigator to be stored in their locked office at Minnesota State University, Mankato for 2 years and then they will be destroyed.

Data Analysis

Demographic and BECCI data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 12. Initially, the mean of the BECCI responses was computed for each healthcare professional. If a healthcare professional had a not applicable item (see questions 1, 9, and 11), a mean was computed without that item. This mean was substituted as the response for each not applicable item for that healthcare professional. After the substitution, a new mean was calculated and used in succeeding calculations. This process is called "mean substitution" and is recommended by the BECCI developers (Lane, 2002, p. 4).

Using descriptive statistics, a demographic profile of the healthcare professionals was developed and the mean BECCI score was computed. The BECCI responses were used to determine if the healthcare professional used MI when providing Sage*Plus* lifestyle counseling interventions, if the spirit of MI was maintained throughout these interactions (questions 5, 6, and 10), and if the healthcare professional talked for less than half the time while encouraging the client to talk about their current behavior and desired change (questions 3 and 4).

Limitations

The limitations of this study were the small sample size and the potential for data collection inconsistencies due to the subjective differences of the three researchers who collected the data. A further limitation included the fact that the researchers had limited training in MI and utilization of the BECCI tool. In addition, the validity and reliability of the BECCI tool, which were found to be reasonable, were calculated from simulated consultations and could prove to be a limitation when applying its use to an actual

healthcare professional-client interaction. Lastly, the potential for the healthcare professional or client to act differently when being observed could also be a limitation of the study.

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CHAPTER IV

RESULTS OF ANALYSIS

The purpose of this study was to determine if Sage*Plus* healthcare professionals who are providing lifestyle interventions were using MI with Sage*Plus* clients and if the healthcare professionals were maintaining the spirit of MI throughout these interactions. In addition to asking the questions of the study's purpose, the research questions asked if the healthcare professionals utilizing MI techniques were maintaining the spirit of MI by listening empathically, did healthcare professionals speak for less than half the time, and did healthcare professionals encourage the client to talk about their current behavior and desired change? Once informed consent was obtained and healthcare professionals had the opportunity to ask questions, the researcher used the BECCI tool to evaluate each healthcare professional. This chapter presents the demographic profile of the health care professionals and the responses to the research questions.

Description of Sample

The sample consisted of 15 of the potential 22 healthcare professionals who provided Sage*Plus* lifestyle counseling interventions in clinics that participated in the MDH-funded Sage*Plus* program. There was two healthcare professionals on leave during the data collection time period, two who declined to participate, one who was unable to get a time scheduled for the researcher to come to gather data, one who was not bilingual, and one who did not return calls or electronic messages.

The healthcare professionals had a wide range of ages and years of experience in health care. Their ages ranged from 25 to 66 with a mean age of 43.79. There were 14

females and one male. The highest degree completed by the healthcare professionals ranged from an Associate Degree to a Master's Degree. Employment status ranged from volunteer to paid employees and casual on-call to full-time with 1 as casual on-call, 2 as volunteer, 5 as part-time, and 7 as full-time. The number of years working in healthcare ranged from 3 to 35 years with a mean of 17.13 years. The number of years working with Sage*Plus* clients ranged from .5 to 10 years with a mean of 3.01 years. The number of years the healthcare professionals had been at their current clinics ranged from .75 to 16 years with a mean of 5.17 years. All of the healthcare professionals reported that they use MI when providing lifestyle counseling (see Appendix G).

Research Question One

The first research question was, *Are healthcare professionals utilizing Motivational Interviewing techniques when providing SagePlus lifestyle counseling?* While all healthcare professionals admitted to using MI, 50% of the BECCI tool scores were less than 3.0, revealing that they used MI techniques less than a good deal. The individual BECCI tool scores for the 14 healthcare professionals who were evaluated ranged from .91 to 3.73 with a mean score of 2.91. Of the 15 healthcare professionals, the researcher was unable to assess the MI techniques of one healthcare professional with the BECCI tool due to language barriers (both healthcare professional and client were Spanish-speaking).

Table 1

Are Healthcare Professionals Using Motivational Interviewing? (N = 15)

Score	Frequency	Percent	Valid Percent	Cumulative Percent
.91	1	6.3	7.1	7.1
2.36	1	6.3	7.1	14.3
2.45	1	6.3	7.1	21.4
2.73	1	6.3	7.1	28.6
2.82	2	12.5	14.3	42.9
2.95	1	6.3	7.1	50.0
3.00	1	6.3	7.1	57.1
3.05	1	6.3	7.1	64.3
3.18	1	6.3	7.1	71.4
3.32	1	6.3	7.1	78.6
3.64	1	6.3	7.1	85.7
3.73	2	12.5	14.3	100.0

Research Question Two

Research question 2 was, *When utilizing Motivational Interviewing techniques, are healthcare professionals maintaining the spirit of Motivational Interviewing by listening empathically?* The healthcare professional was assessed on using empathic listening statements when the client talks about lifestyle change. Questions 5, 6, and 10

on the BECCI tool address the collaborative spirit of MI (evocation, collaboration, and autonomy). The combined scores from these questions ranged from .67 to 4.0 with a mean score of 2.95 which is slightly below the competent level score of 3 (a good deal).

Table 2

Scores Representing the Collaborative Spirit of MI (N = 14)

Score	Frequency	Percent	Valid Percent	Cumulative Percent
.67	1	6.3	7.1	7.1
2.33	1	6.3	7.1	14.3
2.67	3	18.8	21.4	35.7
3.00	2	12.5	14.3	50.0
3.17	3	18.8	21.4	71.4
3.50	1	6.3	7.1	78.6
3.67	2	12.5	14.3	92.9
4.00	1	6.3	7.1	100.0

Research Question Three

Research question 3 was, *When using Motivational Interviewing techniques, do healthcare professionals speak for less than half the time?* Findings reveal only one healthcare professional (6.3%) spoke less than half the time during the observed lifestyle counseling evaluations. Nine of the 15 healthcare professionals (56.3%) spoke more than half the time. "As a guideline, the practitioner should be speaking approximately 50% of

the time or less" (Lane, 2002, p. 8). Language barriers of the one healthcare professional and client who were Spanish speaking did not limit the researcher to assess this question's theme. The researcher was able to assess all 15 healthcare professionals in the category of talk time.

Table 3

Amount of Time Healthcare Professional Speaks (N = 15)

Amount of Time	Frequency	Percent	Percent	Percent
Less than half	1	6.3	6.7	6.7
About half	5	31.3	33.3	40.0
More than half	9	56.3	60.0	100.0

Research Question Four

Research question 4 was, *When using Motivational Interviewing techniques, do healthcare professionals encourage the client to talk about their current behavior and desired change?* Asking open-ended questions or using empathic listening statements to gain an understanding of the client's perspective was the focus of this BECCI score. BECCI questions 3 and 4 inquired about self-efficacy and if encouragement was given to the clients to talk about their current behavior and desired change. Scores ranged from 2.0 to 4.0 with a mean score of 3.07 which is just at the competence level. Half of the healthcare professionals in this study demonstrated a good deal of actively encouraging clients to talk about what the client feels the positive and negative aspects of behavior change would be for them.

Table 4

Scores Representing Empathic Listening (N = 14)

Score	Frequency	Percent	Valid Percent	Cumulative Percent
2.00	3	18.8	21.4	21.4
2.75	1	6.3	7.1	28.6
3.00	3	18.8	21.4	50.0
3.25	2	12.5	14.3	64.3
3.50	2	12.5	14.3	78.6
3.75	1	6.3	7.1	85.7
4.00	2	12.5	14.3	100.0

Summary

The clinical setting was 8 of the 11 clinics that participated in the MDH Sage*Plus* program. Although the goal sample size of 22 was not met, 15 healthcare professionals were evaluated at least once for a participation rate of 73% over the 2-week period of data collection. There was a wide range in age, educational preparation, and years working in health care and with the Sage*Plus* program among the healthcare professionals. Of all of the healthcare professionals providing demographic information for the study, 100% reported that they used MI when providing lifestyle counseling. However, only one healthcare professional spoke for less than half of the time, while 5 of the 15 spoke about half of the time, and 9 spoke more than half of the time. This

indicates the healthcare professionals do not fully adhere to the principles of MI. However, seven of the healthcare professionals did score in the range of 3 (a good deal) to 4 (a great extent) of utilizing MI techniques.

CHAPTER V

DISCUSSIONS AND CONCLUSIONS

The purpose of this study was to determine if healthcare professionals who are providing Sage*Plus* lifestyle interventions were using MI and if the healthcare professionals were maintaining the spirit of MI throughout these interactions. In addition to asking the questions of the study's purpose, the research questions asked if the healthcare professionals utilizing MI techniques were maintaining the spirit of MI by listening empathically, did healthcare professionals speak for less than half the time, and did healthcare professionals encourage the client to talk about their current behavior and desired change? This chapter provides discussion and conclusions for each of the research questions for this study, in addition to the limitations, implications for practice, and implications for future research.

Research Question One

Are healthcare professionals utilizing Motivational Interviewing techniques when providing SagePlus lifestyle counseling? Overall BECCI scores showed half of the healthcare professionals used MI less than 3 (a good deal). However, all 15 healthcare professionals answered yes to this question. This is a self-reported answer and while all the healthcare professionals felt that they are using MI in their lifestyle counseling interactions, their responses were inconsistent with the overall BECCI score. This is congruent with the findings of Hettema, Steel, and Miller (2005) that healthcare professionals often report confidence that they were reasonably proficient in MI after attending an MI workshop and were implementing MI in practice. However, this did not

match existing outcomes of effectiveness in practice (Hettema et al., 2005). Miller and Rollnick described "MI as a technique that is not easily learned and mastered, it involves the conscious and disciplined use of specific communication principles and strategies to evoke the person's own motivations for change" (2009, p. 135). MI is a complex set of skills that requires the ability to adapt easily.

Research Question Two

When utilizing Motivational Interviewing techniques, are healthcare professionals maintaining the spirit of Motivational Interviewing by listening empathically? Questions 5, 6, and 10 of the BECCI instrument reflect the results of this second question. The mean score of these three questions was 2.95 with a standard deviation of .8969. This suggests that the healthcare professionals who participated in this study are maintaining the spirit of MI slightly less than 3 (a good deal of the time) which is not at the competent level. Soderlund et al. (2009) found that recognizing the advantages and embracing the spirit of MI is a critical factor in facilitating its use among healthcare professionals. The spirit of MI requires the healthcare professional to facilitate and collaborate with the client by eliciting how the client thinks and feels about the topic using empathic listening statements and promoting client autonomy by actively conveying respect for the client's choice about their behavior change. Lundahl et al. (2010) reported that what is most important in providing effective MI is "a helping professional's ability to empathize with clients and not their training background" (p. 153).

Research Question Three

When using Motivational Interviewing techniques, do healthcare professionals speak for less than half the time? Talk time is a central feature of behavior change counseling. This study found that only one of the 15 healthcare professionals spoke for less than half the time. According to the BECCI Index, a high score reflects the healthcare professional actively encouraging the client to brainstorm strategies that may help them change their behavior. There were five of the healthcare professionals (31.3 %) who spoke about half of the time and 9 of the healthcare professionals (56.3 %) who spoke for more than half the time. This demonstrates that effectiveness of the lifestyle intervention may be jeopardized as MI is not being utilized to its fullest potential. Ideally, the healthcare professional utilizing MI "strategically listens for, elicits, and responds selectively to certain forms of speech that are collectively termed 'change talk' (Miller & Rollnick, 2009, p. 135). Typical client-centered intervention encourages the client to speak much more than the healthcare professional does and where the healthcare professional chooses what information to elicit and what to reflect upon. This requires a complex set of skills not easily learned or mastered during a one- or two-day training seminar or from a video/lecture. According to Miller and Rollnick, who developed MI, "going to an initial 2-day training can provide a certain head start, but real skill and comfort grow through disciplined practice with feedback and coaching from a knowledgeable guide" (2009, p. 135).

Research Question Four

*When using Motivational Interviewing, do healthcare professionals encourage the client to talk about their current behavior and desired change? Q*uestions 3 and 4 of the BECCI tool ask if the healthcare professional encourages the client to talk about their current behavior and desired change. The cumulative mean score of these two questions was 3.07 which implies the healthcare professional encourages the client to talk about their current behavior and desired change slightly more than 3 (a good deal of the time) and that they are functioning at the minimal competence level. "MI encourages client change talk and has shown that when hearing oneself argue for change, it will increase motivation to change" (Lundahl & Burke, 2009, p. 1234). Miller and Rollnick teach that when healthcare professionals provide a more client-centered MI approach, and "counsel in a reflective, supportive manner, resistance goes down while change talk increases" (2002, p. 9).

Limitations

There are multiple limitations of this study:

- Findings of this study cannot be generalized to all types of healthcare professionals. While the healthcare professionals in this study were diverse, there were no advanced practice nurses or physicians in the sample. Therefore, these findings may not encompass all healthcare professionals who provide lifestyle counseling interventions in other programs similar to Sage*Plus.*

- The small sample size. With only 16 healthcare professionals available to evaluate, the size of the sample did not allow for statistical significance to be established.
- Having multiple researchers has the potential to skew the data. To increase the interrater reliability, basic knowledge of Behavior Change Counseling was obtained, which included a training video and understanding of how to use the BECCI tool. Each researcher scored an MI training vignette utilizing the BECCI instrument. Scoring was compared and a discussion was held to get all researchers scoring similarly. Differing answers were discussed in detail until consensus among the researchers was obtained. This process was repeated until the researcher-designated scoring of all BECCI tool questions were within 1 point of each other on the same vignette.
- The BECCI tool's validity and reliability were established on simulated client interactions rather than with actual healthcare professional-client interaction.
- The potential for the healthcare professional or client to perform differently when being observed posed an additional limitation to the internal validity of this study.
- Lastly, researcher bias was identified as a potential limitation of this study. Each healthcare professional had the opportunity to discuss their individual feelings about being observed and using MI prior to each observation when the informed consent was obtained. The client comments had the potential to bias the researcher during the observation.

Implications for Practice

The information gained from this study can be used to improve the effectiveness of MI- based interventions to guide lifestyle behavior changes with Sage*Plus* program clients. In addition, the findings of this study can be used to help organizations, such as the MDH, to provide ongoing support, feedback, and CE necessary to promote effective use of MI by healthcare professionals who are conducting the lifestyle counseling interventions. While going to a two-day seminar can provide a foundation for utilizing MI, "real skill and comfort grow through disciplined practice with feedback and coaching from a knowledgeable guide" (Miller & Rollnick, 2009, p. 135). The findings indicate that healthcare professionals need additional training and ongoing support to grow in their effectiveness in the use of MI as a counseling intervention.

Implications for Future Research

This study reveals that further research is needed to explore optimal methods to help healthcare providers develop proficiency in MI. Recent data suggest that the level of training does not influence success of MI, "what is most important is a helping professional's ability to empathize with clients and not their training background" (Lundahl et al., 2010, p. 153). Future research may benefit to expand the sample size of the healthcare professionals with the goal of developing statistical significance and determining ways to increase the effectiveness of utilizing MI in lifestyle interventions. Additionally, the healthcare professionals could be assessed immediately after attending a CE or initial session and then monthly or quarterly thereafter. A larger sample may allow the comparison of BECCI scores of healthcare professionals who attended different CE session formats.

Summary

Empathic understanding through reflective listening was first derived from Rogers' person-centered theory of learning. Research has determined that while MI is found to contribute to counseling efforts, outcomes are influenced by delivery factors. Maintaining the spirit of MI was found to be less difficult than being effective in providing MI, which is promising. "Adherence to the spirit of MI is reliably measurable, and predicts treatment outcome" (Miller & Rollnick, 2009, p. 131). Self-reports of utilizing MI are common but were proven not to match actual effectiveness. Findings conclude that MI is not easy and "is a complex clinical style for eliciting the client's own values and motivations for change" (Hettema et al., 2005, p. 108). "MI is more about listening than telling, about evoking rather than instilling, and empowering the client to make the change" (Rollnick et al., 2007, p. 3). While Resnicow et al. (2002) reported that MI has potential application across various professional and healthcare settings, learning MI may require more significant training and ongoing support to be able to keep the integrity of MI intact (Lambe & Collins, 2009; Miller & Rollnick, 2002; Resnicow et al., 2002). However, new research which explores optimal methods for helping healthcare professionals develop proficiency in utilizing MI is necessary. "Training research indicates that proficiency in MI is not readily developed through self-study or by attending a workshop, but typically requires practice with feedback and coaching over time" (Miller & Rollnick, 2009, p. 135).

This study found that Sage*Plus* healthcare providers' overall effectiveness in the use of MI needs some improvement and efforts for evoking change talk and maintaining the MI spirit were found to be somewhat favorable. While obtaining training may

convince some healthcare professionals that they have learned MI, it requires a skillful healthcare professional to be effective in the communication style of guiding while using effective listening to empower individuals to positively influence their own health (Miller & Rollnick, 2009, Shinitzky & Kub, 2001). MI can be effective in brief duration such as with Sage*Plus* lifestyle interventions but training for health professionals utilizing MI techniques need ongoing reinforcement and feedback.

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APPENDICES

APPENDIX A

MDH IRB APPROVAL

Thank you for contacting the Department of Health's IRB regarding the study titled "Minnesota Department of Health Sage*Plus* program evaluation: Motivational Interviewing use and barriers to use in lifestyle counseling interventions." After reviewing the material, we find that the study you are proposing is program evaluation of a public health program and does not constitute research as defined by federal regulations. The primary intent is not to create "generalizable knowledge" but to monitor and improve the operations and process of a public health program. This study does not need further review by the Department of Health's IRB.

Please feel free to contact me if you want to discuss this study further.

Sincerely,

Pete Rode
IRB Administrator

APPENDIX B

MNSU IRB APPROVAL FORM

MINNESOTA STATE UNIVERSITY
MANKATO

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March 4, 2011

Dear Diane, Joan, Heidi, and Jeremy:

Your proposed changes to your Institutional Review Board (IRB) approved research (Log **#3757** – *"Minnesota Department of Health SagePlus program evaluation: Motivational Interviewing use and barriers to use in lifestyle counseling interventions")* have been accepted as of March 4, 2011. Thank you for remembering to seek approval for any changes in your study.

If you make additional changes in the research design, funding source, consent process, or any part of the study that may affect participants in the study, you will have to reapply for approval. Should any of the participants in your study suffer a research-related injury or other harmful outcome, you are required to report them to the IRB as soon as possible.

The approval of your changes is attached to your original proposal; therefore, the original approval date has not changed. When you complete your data collection, or should you discontinue your study, you must notify the IRB. Please include your log number with any correspondence with the IRB.

This approval is considered final when the full IRB approves the monthly decisions and active log. The IRB reserves the right to review each study as part of its continuing review process. Continuing reviews are usually scheduled. However, under some conditions the IRB may choose not to announce a continuing review or a modification.

I wish you success in your research.
Cordially,

Patricia Hargrove

Patricia M. Hargrove, Ph.D.
IRB Coordinator
Cc: File

APPENDIX C

INFORMED CONSENT

Minnesota Department of Health Sage*Plus* Program Evaluation: Motivational Interviewing Use and Barriers to Use in Lifestyle Counseling Interventions

You are being asked to participate in a research study on the use of Motivational Interviewing (MI) in Sage*Plus* lifestyle counseling interventions. We ask that you read this form before agreeing to participate in this evaluation. This evaluation is being conducted by Diane Witt, along with three graduate student researchers Jeremy Waldo, Heidi Sannes, and Joan Grotewold.

Purpose

The purpose of this project is to assist the Minnesota Department of Health evaluate the use of MI in the Sage*Plus* program and determine if there are any barriers to the use of MI. This information will be utilized to enhance MI training and support for health care professionals who are providing the Sage*Plus* lifestyle counseling interventions.

Procedures

If you agree to participate in this research and sign this consent form we ask you to complete two questionnaires, which will take about 10-15 minutes of your time, as well as allowing direct observation of a minimum of two Sage*Plus* lifestyle counseling appointments.

Risks and Benefits

You will be asked personal questions about your age, education, profession, your current job, how your MI training, your beliefs about the use of MI and any barriers you perceive that impact your use of MI. You can choose not to answer any or all of these questions. This information may help to enhance the MDH sponsored MI continuing education training program to better meet the needs of the Sage*Plus* healthcare providers.

Confidentiality

The records of this study will be kept private. The only people who will see this information will be the researchers and the MDH. Your information, name, and place of employment will be kept confidential. There will be no way to identify you or your individual responses in any report of this study. The questionnaires and lifestyle counseling evaluations will be kept in a locked office at Minnesota State University, Mankato for 2 years and then destroyed. Only the researchers and MDH will have access to these files.

Voluntary nature of study

Participating in this study is entirely voluntary. Your decision whether or not to participate will not impact your current employment or relationship with the MDH. If you decide to participate, you may withdraw at any time.

Contact
If you have questions about this study, you may contact Dr. Diane Witt who is the researcher conducting this study at Minnesota State University, Mankato at 507-389-1725. If you have any questions or concerns about the treatment of human subjects contact: MSU IRB Administrator, Dr. Terrance Flaherty, Minnesota State University, Mankato, Institutional Review Board, 115 Alumni Foundation, (507) 389-2321.

I have read the above information and understand that this survey is voluntary and I may stop at any time. I consent to participate in the study.

_____
Signature of Participant

_____
Date

_____
Signature of Researcher

_____
Date

☐ Participant received a copy.

APPENDIX D

CLIENT CONSENT TO OBSERVE PROVIDER SCRIPT

I am a Family Nurse Practitioner student at Minnesota State University, Mankato. I am here today to observe how (name of provider) does the Sage*Plus* appointments. Is it okay with you if I stay and observe them?

APPENDIX E

BEHAVIOUR CHANGE COUNSELING INDEX

Behaviour Change Counselling Index (BECCI; Lane, 2002)

BECCI is an instrument designed for trainers to score practitioners' use of Behaviour Change Counselling in consultations (either real or simulated). To use BECCI, circle a number on the scale attached to each item to indicate the degree to which the patient/practitioner has carried out the action described.
Before using BECCI, please consult the accompanying manual for a detailed explanation of how to score the items. As a guide while using the instrument, each number on the scale indicates that the action was carried out:

0. Not at all
1. Minimally
2. To some extent
3. A good deal
4. A great extent

Item	Score
1. Practitioner invites the patient to talk about behaviour change **Not Applicable** ☐	**not at all** 0 1 2 3 4 **a great extent**
2. Practitioner demonstrates sensitivity to talking about other issues	**not at all** 0 1 2 3 4 **a great extent**
3. Practitioner encourages patient to talk about current behaviour or status quo	**not at all** 0 1 2 3 4 **a great extent**
4. Practitioner encourages patient to talk about change	**not at all** 0 1 2 3 4 **a great exte**
5. Practitioner asks questions to elicit how patient thinks and feels about the topic	**not at all** 0 1 2 3 4 **a great extent**
6. Practitioner uses empathic listening statements when the patient talks about the topic	**not at all** 0 1 2 3 4 **a great extent**
7. Practitioner uses summaries to bring together what the patient says about the topic	**not at all** 0 1 2 3 4 **a great extent**
8. Practitioner acknowledges challenges about behaviour change that the patient faces	**not at all** 0 1 2 3 4 **a great extent**
9. When practitioner provides information, it is sensitive to patient concerns and understanding **Not Applicable** ☐	**not at all** 0 1 2 3 4 **a great extent**
10. Practitioner actively conveys respect for patient choice about behaviour change	**not at all** 0 1 2 3 4 **a great extent**
11. Practitioner and patient *exchange* ideas about *how* the patient could change current behaviour *(if applicable)* **Not Applicable** ☐	**not at all** 0 1 2 3 4 **a great extent**

Practitioner BECCI Score: _____
Practitioner speaks for (approximately):-

More than half the time ☐ About half the time ☐ Less than half the time ☐

APPENDIX F

DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire

Location: _____ Subject #_____ Student Researcher: _____

1. Age:_____

2. Sex: ___ 1. Male ___ 2. Female

3. Highest Degree Completed:

___ 1. RN (BSN) ___ 4. PA

___ 2. RN (ADN) ___ 5. MD or DO

___ 3. APN (FNP, ANP, GNP, etc.) ___ 6. Other _____

4. Employment:

___ 1. Full-time ___ 3. Casual call

___ 2. Part-time ___ 4. Other _____

5. Number of years working in Healthcare: _____

6. Number of years working with Sage*Plus* clients*:*_____

7. Number of years at current clinic: _____

8. Do you use Motivational Interviewing (MI) when providing lifestyle counseling?

___ 1. Yes ___ 2. No

9. What MDH-sponsored MI training have you participated in? (Check all that apply.)

_____ One day Continuing education seminar Number of hours ____Year(s) attended ____

_____ Two-day Continuing education seminar Number of hours ____Year(s) attended ____

_____ Video/Self-study Number of hours ____Year(s) attended ____

_____Other_____

10. What was the format of MDH-sponsored MI training you attended? (Check all that apply.)

____ Role play

____ Lecture

____ Watching Video

____ Round table discussion

____ Other_____

11. Additional MI training you have participated in: (Check all that apply.)

____ Class/Seminar Year(s) attended _____

____ Self-study Year(s) attended _____

____ Webinar Year(s) attended _____

____ Other _____Year(s) attended _____

APPENDIX G

DEMOGRAPHIC TABLE

Healthcare Professionals' Demographic Data – Continuous Variables

Variable	N	Mean	SD	Range
Age	15	43.79	13.40	25-66
Years working in healthcare	15	17.13	11.11	3-35
Years working Sage*PLUS*	15	3.01	2.79	5-10
Years at current clinic	13	5.17	4.61	.75-16

Healthcare Professionals' Demographic Data – Discrete Variables

Variable	N	%
Gender		
Male	1	6.7
Female	14	93.3
Employment		
Full-time	7	46.7
Part-time	5	33.3
Casual Call	1	6.7
Other	2	13.3
Highest Degree Completed		
RN (BSN)	5	33.3
RN (ADN)	1	6.7
LPN	1	6.7
CHW	1	6.7
Dietician	2	13.3
MPH	1	6.7
BA	2	13.3
BS	1	6.7
No Response	1	6.7