

THE USE OF MOTIVATIONAL INTERVIEWING TO INCREASE PROVIDER
CONFIDENCE AND COMFORT IN ADDRESSING OBESITY

by

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As members of the DNP Project Committee, we certify that we have read the DNP project prepared by *Hailey Elizabeth Stritzke*, titled *The Use of Motivational Interviewing to Increase Provider Confidence and Comfort in Addressing Obesity* and recommend that it be accepted as fulfilling the DNP project requirement for the Degree of Doctor of Nursing Practice.



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Final approval and acceptance of this DNP project is contingent upon the candidate's submission of the final copies of the DNP project to the Graduate College.

I hereby certify that I have read this DNP project prepared under my direction and recommend that it be accepted as fulfilling the DNP project requirement.



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DEDICATION

I would like to dedicate this project to my mother and father for serving as my greatest support system throughout this challenging process. I would not be where I am today without your constant love and support. I cannot thank you enough for the wonderful opportunities you have made possible.

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ABSTRACT

Purpose: The purpose of my project is to identify health care providers' confidence and attitudes in addressing obesity and determine if asynchronous provider education including motivational interviewing (MI) is an effective tool in increasing providers' confidence and attitude in addressing adult obesity in two primary care clinics in San Diego.

Background: Obesity is associated with a significant risk for morbidity, mortality, and decreased quality of life. Current guidelines recommend primary care providers screen all adults for obesity and offer or refer obese patients to intensive counseling and multicomponent behavioral interventions. Despite clinical guidelines the crucial role of primary care providers in addressing rising trends in obesity, many providers fail to consistently adhere to obesity screening and management. MI a communication approach that may help providers overcome perceived barriers to addressing obesity with adult patients in the clinical setting.

Methods: A 15-minute Likert scale pretest survey was electronically emailed to six providers in a primary care clinic. Details of the survey included: 1) Knowledge of MI and obesity management; 2) Attitudes associated with obesity; and 3) Perceived barriers to addressing obesity. All provider participants received an educational asynchronous PowerPoint focused on the use of MI to initiate obesity counseling and management. Following content viewing, provider participants were instructed to respond to a post-test survey identical to the pretest survey.

Outcomes Achieved: Five primary care providers completed the pretest and posttest for a response rate of 75%. Participants include three nurse practitioners and two physicians. Overall and individual response scores improved in MI and obesity management knowledge. Overall

attitudes towards obesity also showed improvement, however, individual attitude scores were inconsistent with responses ranging from improvement to unchanged or regressed. Consistent with findings from the literature common reported perceived barriers included time constraint, lack of patient adherence to obesity management, and lack of patient interest in receiving obesity counseling. Results were shared with participants and clinic management in the form of an executive summary of overall scores to protect identities of this small sample

Conclusion: Asynchronous educational sessions focused on MI and obesity management are effective in addressing provider knowledge deficits. Future educational interventions should be modified to further address negative attitudes and perceived barriers in an effort to increase providers' adherence to obesity screening and management guidelines. Following intervention improvements, this project will be reimplemented with a larger sample of primary care providers. Future research should include more extensive demographics and characteristics which may impact provider knowledge and attitude regarding obesity and addressing obesity with patients.

INTRODUCTION

Obesity is a debilitating, complex metabolic disorder that is characterized by excess body fat mass (Doig & Huether, 2014). As the prevalence of obesity and associated health comorbidities continues to rise, primary care providers have a crucial role in addressing this issue by delivering weight management counseling and treatment options to obese patients in the primary care setting.

Background Knowledge

Obesity results when caloric intake consistently exceeds caloric expenditure (Doig et al., 2014). This multifarious, avoidable medical condition continues to negatively impact humans universally at an alarming rate (Doig et al., 2014). The prevalence of obesity has doubled since the year 1980 (World Health Organization, 2016). Furthermore, more than one-third of adults in the United States are now obese (Centers for Disease Control and Prevention [CDC], 2017). Urbanization, economic growth, industrialization, mechanical transport, increased sedentary lifestyle, dietary transition to fast food and high calorie intakes are factors influencing the rising epidemic of obesity (Hruby & Hu, 2015). Obesity is adversely linked to numerous health-related issues and is correlated with a significant risk for morbidity, mortality, and amplified healthcare expenses (Doig et al., 2014). Healthcare costs of obesity among the United States are estimated to equal 147 billion dollars annually (CDC, 2017). In addition to harmful medical conditions and increased healthcare costs, obesity is also connected to psychological consequences involving anxiety, self-esteem, depression, and eating disorders (Mirkarimi et al., 2017). Considering the medical and financial impact of obesity, it is crucial for health care providers to emphasize address obesity with weight loss treatments tailored to individual patients.

Significance to Health Care

Obesity is a common presentation in primary care clinics. Considering the rising prevalence of obesity and associated complications, primary care providers have a fundamental role in defying this national pandemic by addressing obesity and promoting weight management therapy in the clinical setting (Kraschnewski et al., 2013). Current guidelines from the U.S. Preventative Service Task Force (USPSTF) recommend primary care providers screen all adults for obesity and offer or refer obese patients to intensive counseling and multicomponent behavioral interventions (USPSTF, 2012). In addition to policy recommendations, patients suffering from obesity often desire and expect their providers to deliver weight management recommendations (Pool et al., 2014). Despite increasing trends in obesity and expectations from both policymakers and patients, primary care providers do not routinely address obesity (Kraschnewski et al., 2013). National survey results reveal 58% of primary care providers do not implement any type of weight loss counseling (Banerjee, Gambler, & Fogleman, 2013). Various barriers that may dissuade primary care providers from obesity screening and counseling include time constraints, insufficient confidence, inadequate knowledge and skill, belief that patients are not motivated to lose weight, assumption that patients will not be compliant with weight loss treatments, negative stereotypes towards obese individuals, and fear of upsetting or embarrassing the patient (Dewhurst, Peters, Devereux-Fitzgerald, & Hart, 2017; Phelan et al., 2015).

In a needs assessment conducted by Nawaz et al. (2016), general practice residents were able to adequately identify health risk behaviors, however, none of the residents were reported competence in behavioral risk counseling or motivational interviewing. Furthermore, the study suggests appropriate training in lifestyle modifications can enhance providers' knowledge and

confidence in addressing obesity (Nawaz et al., 2016). This data is significant, considering providers can notably influence patients' motivation and engagement in weight loss treatments. When providers do not address obesity with patients, patients may assume their weight is not a concern, therefore, decreasing their probability of adopting lifestyle modifications that promote weight loss (Pool et al., 2014). Conversely, literature suggests obese patients are more likely to grasp the urgency of weight loss and participate in treatment if providers address the issue and deliver supportive weight management counseling (Barnes & Ivazej, 2014). Together, this evidence highlights the importance of effective communication and teamwork among providers and patients in order to meet patients' needs and promote weight loss.

The Department of Veteran Affairs/Department of Defense (VA/DoD, 2014) guidelines recommend motivational interviewing (MI) as a communication approach to address obesity and evoke patient motivation to agree and adopt weight loss interventions. MI is an unbiased, patient-centered tactic that enhances behavioral changes and intrinsic motivation by addressing ambivalence (Barnes et al., 2015). MI prompts providers to incorporate open-ended questions that encourage patients to reflect on their goals and reveal personal motives for change (Barnes & Ivezaj, 2015). MI can increase patients' participation and compliance with weight loss interventions as well as confidence in their provider (VA & DoD, 2014). Furthermore, MI can improve providers' confidence in addressing obesity and offering weight management counseling (Pool et al., 2014). Regardless of prior therapeutic instruction, primary care providers can be trained to successfully practice MI in the clinical setting to professionally address obesity (Barnes et al., 2015). Integrating cost-effective, time-limiting skill into routine practice can promote extensive anti-obesity treatment dissemination (Barnes et al., 2015).

Local Problem

Although California's obesity rate is lower than many other states, over a quarter of California adults struggle with obesity and associated complications (California Department of Public Health, [CDPH], 2016). Additionally, statistics demonstrate the prevalence of obesity among adults is continuously rising (CDPH, 2016). Findings show 27.0% of adults in California were obese in 2014, which was nearly a 40% increase from 2011 (CDPH, 2016). Specific to the San Diego region, the prevalence of obesity is continuing to rise with an estimated 511,978 adults affected by obesity (CDPH, 2016). This information emphasizes primary care providers' crucial responsibility to address obesity in order to improve patients' health and promote a healthy community.

Intended Improvement

The purpose of this project is to identify health care providers' confidence and attitudes in screening all adults for obesity and providing behavioral weight loss counseling to obese patients and determine if asynchronous provider education including MI is an effective tool in improving providers' confidence and attitude in addressing adult obesity in two primary care setting. The primary stakeholders for this project were primary care providers at two primary care clinics in Southern California. The quality improvement project may contribute to the long-term goal of improving the health and quality of life of patients in a local primary care clinic in California. Improving primary care providers' knowledge and attitudes may increase compliance in adhering to current clinical guidelines of addressing obesity and weight loss interventions with obese adult patients in the primary care setting. In order to achieve this goal, a presurvey and postsurvey was developed to assess knowledge of MI and obesity management, provider attitudes

and perceived barriers in the clinical setting. Determining various factors that may limit providers' adherence to current guidelines involving obesity can help guide the quality improvement implementations that focused on specific needs and concerns among providers. Participants consisted of primary care providers among two local Southern California primary care clinics. A pre-survey regarding knowledge and attitude of MI and obesity management was distributed to provider participants. Provider participants were also instructed to list two perceived barriers to obesity counseling and management. Following analysis of the pre-survey results, an educational PowerPoint and voiceover incorporating evidence-based MI and obesity management was created and delivered to participants. Subsequently, a post-survey was administered to provider participants. Pre-survey and post-survey responses were analyzed to determine differences in providers' knowledge and attitude of MI and obesity management.

Study Question

Does an asynchronous educational voiceover PowerPoint presentation focused upon MI improve primary care providers' confidence, knowledge, and attitude in addressing obesity with obese adult patients?

FRAMEWORK AND SYNTHESIS OF EVIDENCE

Theoretical Framework

Plan-Do-Study-Act (PDSA) Cycle Model

The Plan-Do-Study-Act (PDSA) cycle is a fundamental component of the Model for Improvement that guided the planning, implementation, analysis, and reflection of my quality improvement project (Institute for Healthcare Improvement [IHI], 2018). The PDSA is an action-oriented framework founded on the concept of change and evaluation to test a proposed change

and promote rapid implementation and dissemination of improvement (Laverentz & Kumm, 2017). Incorporating four cyclic phases: Plan, Do, Study Act, (Figure 1) the PDSA model starts by making predictions involving the outcomes of the change to be implemented and generating a strategy for assessing predictions (IHI, 2018). The PDSA model encourages the implementation of evidence-based changes into routine practice to enhance the quality and effectiveness of health care services (Nilsen, 2015). My purpose aligns with this model to improve the health and quality of life of patients in a local primary care clinic in California. The model supports the aim of my project which involved planning an assessment of provider confidence, attitude and compliance with current clinical guidelines including motivational interviewing (MI) in addressing obesity, then studying the results and acting to develop an asynchronous learning tool to address the identified needs. Though beyond the scope of my project, this cycle could be repeated reassessing provider needs.

The initial “Plan” phase of the PDSA consists of planning a small change based on evidence-based practice guidelines that addresses a problem identified (Laverentz & Kumm, 2017). Furthermore, this step suggests determining the objective of the change, predicting outcomes, and generating a plan to test the change (IHI, 2018b). During this phase, a formalized plan was constructed to introduce and test my planned change. Pertinent data of the rising prevalence of obesity as well as barriers deterring primary care providers from adhering to clinical practice guidelines regarding obesity was gathered. Literature was explored concentrating on motivational interviewing as a strategy to improve obesity counseling and management by decreasing perceived barriers and enhancing providers’ confidence and attitudes in addressing obesity with obese adult patients. After relevant material supported by literature

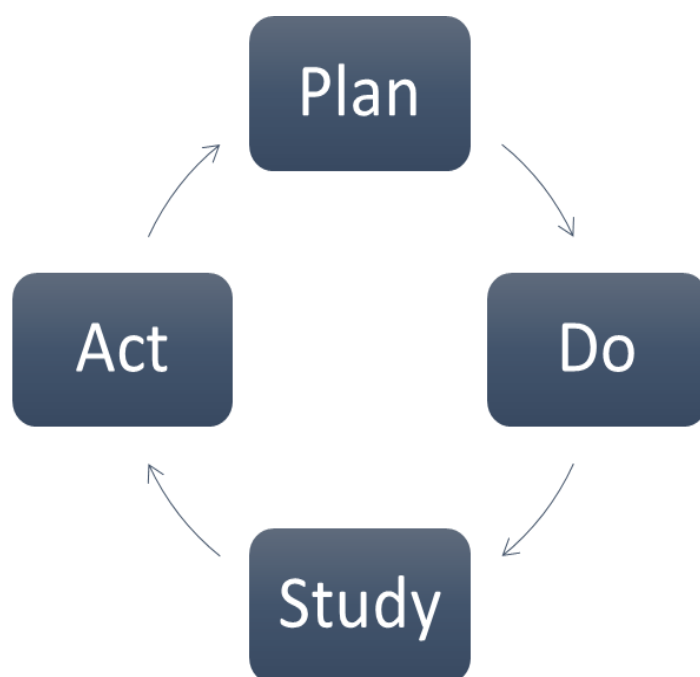
was identified, an asynchronous PowerPoint was developed for primary care providers in the San Diego, California region. Furthermore, a pre-survey and post-survey was created for participating primary care providers based on personal knowledge, attitude, and perceived barriers regarding MI and obesity management. The pre-survey was distributed to participants prior to delivery of the educational presentation. The post-survey was provided subsequent to the educational presentation to assess effectiveness of the intervention. Expected findings included improvements in knowledge and attitude regarding MI and obesity management after viewing an educational presentation.

The next step, or “Do” phase, involves trying the change on a small scale (IHI, 2018). Specifically, this includes executing the change, recording issues or unforeseen observations, and beginning data analysis (IHI, 2018). In this phase, I assessed data gathered from the “Plan” stage (IHI, 2018). In order to accomplish this, I delivered the pre-survey to participating primary care providers among two clinical settings, then develop an educational asynchronous voiceover PowerPoint to address identified needs, including MI as a strategy to improve confidence and attitude of obesity management. Next, post-surveys were distributed to participant providers. Participants were instructed to view the educational presentation prior to completing the post-survey. Successes, obstacles, and unexpected circumstances were observed and evaluated throughout the change process (IHI, 2018).

The third step of the PDSA cycle, or “Study” phase involves analyzing data and studying results (IHI, 2018). Specifically, this step aims to complete data analysis, compare data to predictions, and summarize what was learned (IHI, 2018). This step is crucial in determining the overall outcomes of the implemented change (IHI, 2018). During this stage, I compared pre-

survey and post-survey results. I evaluated response scores to determine if the intervention produced anticipated reports of improved confidence, knowledge, and attitude addressing obesity with obese adult patients.

The final stage entails modifying the change based on outcomes and what was learned during the change process (IHI, 2018). Provider reports demonstrated improved knowledge in MI and addressing obesity. Attitude results varied, warranting intervention improvement focused on negative attitudes. Revision of the project was fulfilled, and appropriate changes are being made for reproduction and dissemination on a larger scale (IHI, 2018). Project findings were shared with the clinic providers and staff as an executive summary disseminating my findings locally without breaching participant confidentiality.



Derived from Institute for Healthcare Improvement (2018)

FIGURE 1. PDSA cycle.

Concepts

As previously discussed above, obesity is a prevalent medical issue among primary care clinics. Numerous factors may impact primary care providers' approach and clinical-decision making regarding obesity. Literature suggests confidence, knowledge, and attitudes are primary aspects that may impact providers' approach and counseling concerning obesity with patients (Uy, Sarmiento, Gavino, & Fontelo, 2014). Exploring these concepts helped reveal needs and potential barriers that may hinder provider adherence to current guidelines involving obesity screening and counseling. Furthermore, the concept of asynchronous education was relevant to my project considering asynchronous educational material may improve providers' knowledge, confidence and attitudes regarding obesity counseling and management (Vallabhan et al., 2017).

Obesity was the fundamental concept inspiring the purpose of my project. Obesity is defined as excess or abnormal fat accumulation with associated health risks (WHO, 2018). A standard measure of obesity is the body mass index (BMI), which involves a calculation of one's weight divided by the square the individual's height (WHO, 2018). Obesity is classified as a BMI of 30 or greater (WHO, 2018). Obesity is often associated with increased medical comorbidities as well negative stigmatism (Phelan et al., 2015). It is crucial for primary care providers to comprehend the complex etiology of obesity as well key trends and risk factors among adult patients in order to deliver appropriate prevention and treatment recommendations. Furthermore, providers should be aware of their own biases and attitudes as well as strategies to respectfully and effectively address obesity related concerns with patients in order to optimize patient outcomes (Phelan et al., 2015).

Confidence can be recognized as a person's belief of trustworthiness or reliability involving oneself or another individual (Uy et al., 2014). Self-confidence involves a positive and realistic perception of oneself as well as one's personal abilities (Adelmann, Livingstone, & Mohanty, n.d.). Confidence is a perception that may influence an individual's decisions and actions (Uy et al., 2014). In relation to healthcare, primary care provider's self-confidence may impact their routine practice. Literature suggests primary care providers may not attempt to resolve clinical issues in which they do not feel self-effective or knowledgeable (Uy et al., 2014). Furthermore, primary care providers' confidence in patients can also impact judgments and recommended interventions (Uy et al., 2014). Primary care clinicians have reported low confidence in their ability to provide appropriate management and recommendations to enhance obese patient outcomes (Phelan et al., 2015). Lack of knowledge, deficiency in training, consultation time, or belief that recommendations will not improve patient behavior may contribute to providers' lack of confidence (Phelan et al., 2015). Knowledge is a key component to that influences one's sense of confidence and self-efficacy. Among providers, advanced knowledge is associated with higher self-reports of confidence and positive attitudes towards assessments (Hanauer & Bauerle, 2015). A self-report survey was utilized to assess providers' knowledge of obesity and effective communication techniques that enhance providers' self-assessed proficiency in generating conversations with obese adult patients regarding the role of health and weight (Vallanbhan et al., 2017). Evaluating providers' knowledge and confidence in addressing obesity helped guide interventions that promote adherence to current screening and counseling guidelines, therefore improving patient outcomes.

An attitude is recognized as a moderately persistent organization of feelings, beliefs, and behavioral predispositions towards socially significant groups, objects, symbols, or events (McLeod, 2018). Furthermore, an attitude may present as a psychological inclination that is conveyed by evaluating a specific entity with some degree of approval or disapproval (McLeod, 2018). Support, prior experiences, opinions, perceptions, knowledge, biases and current state of being are key concepts that influence one's level of confidence and attitude (Wensley et al., 2017). The concept of attitude is relevant to my project, considering this aspect may impact providers' routine clinical decisions and actions. If an attitude towards obesity has a strong degree of importance and relevance to a provider, they may be more inclined to address obesity with patients in the clinical settings. However, if providers have negative beliefs or feelings towards obesity, obesity discussion and management may not be prioritized. Unsuccessful experiences in helping patients lose weight, lack of knowledge, and societal stigmas may contribute to providers' negative attitudes regarding obesity and obesity management (Vallabhan et al., 2017). A Likert-type scale was implemented to assess affective components, behavioral components, and cognitive components that structure attitudes pertaining to obesity screening and counseling. Survey questions focused on both positive and negative attitudes associated with obesity to help gain insight on perspectives that serve as facilitators or barriers to obesity screening and management. Additionally, provider participants were also asked to list two perceived barriers to addressing obesity in the form a free-text response. This feature helped further gauge the influence of attitude in obesity screening and management as well as other potential barriers irrelevant to attitude.

Asynchronous learning is recognized as a method of education ,instruction, and training, independent of place and time (Jordan et al., 2013). Asynchronous learning is commonly utilized digitally and online. This style of learning helps reduce barriers to learning, such as distance and time restraints (Jordan et al., 2013). These benefits may be particularly advantageous in delivering educational content and training to primary care providers. Asynchronous education can allow providers to view content at their own pace and convenience. Offering accessible, cost-effective, and flexible training modalities may increase participation, therefore, potentially enhancing providers' skill, confidence and attitude regarding various healthcare aspects, such as obesity (Bullard, Leuck, & Howley, 2017).

Exploring barriers that may limit providers confidence and attitude in addressing obesity helped tailor educational material to improve specific needs and concerns. Utilizing the PDSA cycle to implement asynchronous educational content including motivational interviewing was incorporated to help improve providers' confidence and attitude in addressing obesity and aid in prevention and management techniques (IHI, 2018). Furthermore, the PDSA cycle supports action-oriented learning to accelerate improvement, which may increase the likelihood of successful outcomes (IHI, 2018).

Synthesis of Evidence

Despite increasing trends in obesity and expectations from both policymakers and patients, primary care providers do not routinely address obesity (Kraschnewski et al., 2013). The purpose of my project is to identify health care providers' confidence and attitude in addressing obesity and determine if asynchronous provider education including motivational

interviewing (MI) is an effective tool in improving providers' confidence and attitude in addressing adult obesity in the primary care setting.

A literature review was performed to determine if brief educational interventions involving MI enhances providers' confidence in addressing obesity with adult patients. Key words such as "adult obesity," "motivational interviewing," "interventions," "confidence," "attitude," "primary care," "brief education," and "provider education," were utilized in PubMed, Google Scholar, and CINAHL. Approximately 16,800 articles were yielded. In order to eliminate irrelevant articles, inclusion requirements such as "articles published within the last five years," "human species," and "full-text available" were applied to narrow studies. Ten of these articles were selected to synthesize based on applicability and significance to fundamental areas of my project (Table 1).

TABLE 1. Evidence table.

Author / Article	Qual: Concepts or phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
Barnes, R.D. & Ivezja, V. (2015). A systematic review of motivational interviewing for weight loss among adults in primary care. <i>Obesity Reviews</i> , 16 (4) 304-218. doi: 10.1111/obr.12264	Qual: Effect of motivational interviewing (MI) for weight loss among adults in primary care settings	N/A	Systematic review & meta-regression analysis of published, peer-reviewed randomized and cluster RCTs	RCT studies (n=24) Patients (n=7,448) Ages 40-63.9	Search engine: PUBMED Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) flow diagram	Weight loss: 37.5% of studies demonstrated weight loss to be statistically significant following MI compared to control group. Loss of body weight: 54.2% studies reported pts losing at least 5% of initial body weight
Bearden, A.D. (2016). Overcoming barriers and increasing confidence of providers and nurses in addressing overweight and obesity. Retrieved from http://www.nursinglibrary.org/vhl/handle/10755/620636	Quan: Will a brief educational session for primary care providers involving the Transtheoretical Model of Change, motivational interviewing, and Modified 5 A's improve weight loss management by decreasing barriers and enhancing provider confidence in addressing obesity with patients?	TTM & 5 As of behavioral counseling	Quasi-experimental	Primary care providers (n=13) NPs (n=4) RNs/LVs (n=9) Chart audits (n=150)	Pre-intervention/post-intervention online survey Survey: Developed from Confidence Ruler & Academic Behavioral Confidence scale Chart review: Before and after intervention to determine how many pts received educational folder and MOVE program consults	Provider confidence demonstrated improvement (p=0.033) Decreasing barriers: Did not demonstrate significant improvement Chart reviews show increased patient/provider discussion regarding weight management

TABLE 1. – *Continued*

Author / Article	Qual: Concepts or phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
Ceccarini, M., Borrello, M., Pietrabissa, G., Manzoni, G. M., & Castelnuovo, G. (2015). (Ceccarini, Borrello, Pietrabissa, Manzoni, & Castelnuovo, 2015). Motivational interviewing in childhood obesity treatment. <i>Frontiers in Psychology</i> , 6, 511. doi:10.3389/fpsyg.2015.00511	Qual & Quan: Explore effects of MI interventions in treating overweight & obese pediatric pts	N/A	Critically appraised topics	Systematic review (n=6) Pediatric pts (n=1820) 55.6% Females=55.6% Mean age=6.21	Two electronic databases were utilized- PubMed & PsychINFO	50% of studies demonstrated statistically significant positive outcomes regarding BMI and secondary obesity-related behavior Statistically significance varied among calorie intake/consumption, time decrease in time spent watching television, and the reduction of sweetened foods/beverages,

TABLE 1. – *Continued*

Author / Article	Qual: Concepts or phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
<p>Cucciare, M. A., Ketrosor, N., Wilbourne, P., Midboe, A. M., Cronkite, R., Berg-Smith, S. M., & Chardos, J. (2012). Teaching motivational interviewing to primary care staff in the veterans health administration. <i>Journal of General Internal Medicine</i>, 27(8), 953-961. doi:10.1007/s11606-012-2016-6</p>	<p>Qual & Quan Implementing a training protocol on MI to improve MI knowledge, confidence & ability to utilize MI-based skills & apply them to written vignettes, perceived skill & comfort in lifestyle counseling, & job-related burnout</p>	<p>NA</p>	<p>Quasi-experimental</p>	<p>Primary care participants (n=229)</p> <p>Prior MI experience (n=84)</p> <p>Prescribing providers (n=59)</p> <p>Nurses (n=91)</p> <p>Mental health (n=30)</p> <p>Administrative/Clerical (n=27)</p> <p>Other (n=22)</p>	<p>Training protocol included 6 sessions in two phases</p> <p>Phase 1: Pretest-posttest design using paired <i>t</i>-test</p> <p>Questionnaire: immediately before & after training. Job-related characteristics, knowledge of MI & confidence in supporting lifestyle changes, use of MI skills, application of MI skills to written clinical scenarios perspectives of lifestyle counseling, & job-related burnout.</p> <p>Phase 2: Vignettes Reflections, open-ended questions, behavioral counts, Perspectives on lifestyle counseling & job-related burnout</p> <p>2 coding systems to evaluate written responses: The Helpful Response Questionnaire (HRQ) & authors own written evaluation tool based elements of the MITI</p>	<p>MI knowledge and confidence: improvement was statistically significant (p=<0.001)</p> <p>Use of MI skills: Increased mean scores were statistically significant (p=<0.001)</p> <p>Application of MI skills (vignettes): Increase in quality of reflections was statistically significant (p=<0.001). Behavioral counts: Findings suggest improvement in ability to apply MI skills improves over the course of training</p> <p>Perspectives on lifestyle counseling and job-related burnout: Changes were not significant</p>

TABLE 1. – *Continued*

Author / Article	Qual: Concepts or phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
<p>Dewhurst, A., Peters, S., Devereux-Fitzgerald, A., & Hart, J. (2017). Physicians views and experiences of discussing weight management within routine clinical consultations: A thematic synthesis. <i>Patient Education and Counseling</i>, 100(5), 897-908. doi:https://doi.org/10.1016/j.pec.2016.12.017</p>	<p>Qual: Explore providers' experiences of discussing weight management with pts during routine consultations</p>	<p>N/A</p>	<p>Thematic Synthesis</p>	<p>Studies synthesized (n=16) Healthcare providers (n=402)</p>	<p>PICO developed to guide search</p> <ol style="list-style-type: none"> 1) Systematic search of databases: MEDLINE, EMBASE, PsycINFO, CINAHL Plus 2) Record retrieval & review for relevance 3) critical appraisal: Critical Appraisal Skills Programme (CASP) checklist 4) thematic synthesis 	<p>Barriers exist among providers and pts regarding weight management</p> <p>4 analytical themes demonstrated among providers:</p> <ol style="list-style-type: none"> 1) Pessimism regarding pts ability to successfully lose weight 2) Feelings of frustration and hopelessness 3) Dual nature of provider-patient relationship 4) Who should take responsibility for weight management <p>Providers desire increased knowledge & training in MI, nutritional awareness, how to address weight, & cognitive behavioral technique</p> <p>Providers with prior MI training reported less frustration</p>

TABLE 1. – *Continued*

Author / Article	Qual: Concepts or phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
Edwards, E. J., Stapleton, P., Williams, K., & Ball, L. (2016). Building skills, knowledge and confidence in eating and exercise behavior change: Brief motivational interviewing training for healthcare providers. <i>Patient Educ Couns</i> , 98(5), 674-676. doi:10.1016/j.pec.2015.02.006	Quan: Can brief motivational interviewing training improve provider skills, knowledge and confidence in counseling patients in regard to health behaviors?	N/A	Quasi-experimental	Healthcare providers (n=163) Age: (M=27.18) Received training (n=128) Females (n=104) Nurses (n=25.7%) Psychologists (n=4.8%) Counsellors (n=18.1%) Community workers (n=43.8%) Other (n=7.5%) Did not received training (n=35) Females (n=31) Nurses (n=9.1%) Psychologists (n=9.1%) Counsellors (n=27.3%) Community workers (n=40.9%) Other (n=13.6%)	MI knowledge at baseline: 15-item Motivational Interviewing Knowledge and Attitudes Test & 6-item multiple choice test Confidence in counseling in regard to health behavioral changes: 8-item MI Confidence Scale Skills: Two intervals during training. 12-item Behavioral Change Counseling Index Data collection: Pre, post, 3-mo, follow-up & 6mo follow-up.	Participants knowledge of MI & confidence in counseling patients using brief MI drastically improved after training (p<0.05). Statistically significant Continued at 3 & 6mo follow-up (p<0.05). Statistically significant Brief MI skills assessed during simulated pt communications demonstrated notable improvement across two practical training sessions (p<0.05). Statistically significant

TABLE 1. – *Continued*

Author / Article	Qual: Concepts or phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
<p>Lundahl, B., Moleni, T., Burke, B. L., Butters, R., Tollefson, D., Butler, C., & Rollnick, S. (Lundahl et al., 2013). Motivational interviewing in medical care settings: A systematic review and meta-analysis of randomized controlled trials. <i>Patient Education and Counseling</i>, 93(2), 157-168. doi:157-168: https://doi.org/10.1016/j.pec.2012.07</p>	<p>Qunt: Explore MI's efficacy in healthcare settings</p>	<p>N/A</p>	<p>Systematic review and meta-analysis of RCTs</p>	<p>Studies included (n=48) Unique comparisons (n=51) Participants (n=9,618)</p>	<p>Independently coded by two authors: Delivery of MI, patient characteristics, & study design Primary effect size: Odds Ratio-Binomial Effect Size Display Comprehensive Meta-Analysis software-calculate ORs & run moderator analyses Search strategy: random effect model Regression analysis for continuously distributed moderators: "unrestricted maximum likelihood" technique</p>	<p>Overall effect: Modest advantage for MI (P<0.001). Statistically significant Study level: 63% of comparisons were positive (p=<.05). Statistically significant Omnibus OR: pts receiving MI 1.55x more likely to improve than pts in comparison BESD: 56% of pts improved after receiving MI compared to 44% under comparison circumstances MI demonstrated statistically significant outcomes in dental caries, body weight, bp, cholesterol, mortality rate, HIV viral load, physical strength, amount of alcohol/drug use, smoking cessation, quality of life, self-monitoring, sedentary lifestyle, pt confidence, motivation to change, and engagement in management. MI did not display statistically significant outcomes in heart rate, practice of safe sex, blood glucose, healthy eating, eating disorder behavior, functional independence following stroke, injury prevention, cessation of marijuana use, breast-feeding, self-care, and adherence to medications</p>

TABLE 1. – *Continued*

Author / Article	Qual: Concepts or phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
<p>Nawaz, H., Petraro, P. V., Via, C., Ullah, S., Lim, L., Wild, D., . . . Phillips, E.M.(2016)(Nawaz et al., 2016). Lifestyle medicine curriculum for a preventative medicine residency program: Implementation and outcomes. <i>Medical Education Online</i>, 21(1), 29339. doi:10.3402/meo.v21.29339</p>	<p>Quan: Does increasing the amount of rotation time and number of didactics demonstrate further improvement in knowledge and competency of residents regarding lifestyle counseling for preventative medicine?</p>	<p>N/A</p>	<p>Perspective Cohort study</p>	<p>Preventative medicine residents (n=20) Females (n=11) 65% of Asian ethnicity (n=13) White (n=1) Age 20-30 (n=3) Age 31-40 (n=17) Setting: Southern Connecticut Griffin Hospital</p>	<p>T-tests & paired T-tests: To evaluate baseline & follow-up surveys. To assess OSCE scores. Statistical significance: Fixed at an alpha of 0.05. SAS software for Windows (version 9.3; SAS Institute, Cary, NC) for evaluation of data. Results: Conveyed as means & standard deviation in tables & text</p>	<p>Residents' discussion of lifestyle medicine issues w/patients: 15% increase. Statistically insignificant Residents' knowledge regarding lifestyle factors & confidence in discussing lifestyle concerns w/patients: Slight improvement, statistically insignificant Residents' personal health behaviors: Slight improvement, statistically insignificant Concerns with personal weight: Slight improvement, statistically insignificant Residents' management of stress: 6.1 pre-rotation to 7.1 post-rotation. Statistically significant OSCE score: Increase in score each year, trend of p=0.01. Preventative residents OSCE score (80%) Preliminary residents (control) OSCE score (76%) Statistically insignificant (P=0.11)</p>

TABLE 1. – *Continued*

Author / Article	Qual: Concepts or phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
<p>Resnicow, K., McMaster, F., Bocian, A., Harris, D., Zhou, Y., Snetselaar, L., . . . Foster, J. (2015). Motivational interviewing and dietary counseling for obesity in primary care: A RCT. <i>Pediatrics</i>, 135(4), 649-657. doi:10.1542/peds.2014-1880.</p>	<p>Qual: Examine the impact of MI delivered by healthcare providers to parents of overweight children</p>	<p>NA</p>	<p>RCT</p>	<p>Practices (n=42) Patients (n=645)</p> <p>Age of children Mean=5.1</p> <p>Child BMI Mean=91.9</p> <p>Child gender: Females (57.1%)</p> <p>Parent respondents: mother (97%)</p>	<p>Practices randomly assignment into 3 groups.</p> <p>Group 1: usual care Group 2: PCP with 2-days of personal training in MI & behavioral therapy. 4 MI sessions provided to parents Group 3: PCP and Registered dietitian (RD) with same training as group 2. 4 MI sessions from provider & 6 MI sessions provided from RD to parent</p> <p>Pts BMI was calculated at initial & 2-year follow-up apt.</p>	<p>2-year follow-up BMI: 90.3, 88.1, & 87.1 for groups 1, 2 & 3</p> <p>Mean of group 3 was statistically lower than group 1 (p=.02)</p> <p>Mean changes from baseline BMI percentile: 1.8, 3.8, & 4.9 coinciding with groups 1, 2, & 3</p>

TABLE 1. – *Continued*

Author / Article	Qual: Concepts or phenomena Quan: Key Variables Hypothesis Research Question	Theoretical Framework	Design	Sample (N)	Data Collection (Instruments/Tools)	Findings
Sim, L. A., Lebow, J., Wang, Z., Koball, A., & Murad, M. H.(Sim, Lebow, Wang, Koball, & Murad, 2016).Brief primary care obesity intervention: A meta-analysis. <i>Pediatrics</i> , 138(4). doi:10.1542/peds.20160149	Quan: Do early, brief interventions implemented by health care providers influence pediatric obesity in regard to BMI reduction?	N/A	Meta-analysis	Studies included (n=12) RCTs (n=10) Quasi-experimental (n=2) Use of motivational interviewing (n=10)	Pilot-tested computerized extraction J.L. & L.A.S: abstracted data describing pt population & treatments DerSimonian-Laird andom effects model: Accumulate effect size across included studies Stata 13.1: Conduct all statistical analysis	Brief interventions from primary care providers: Small reduction in BMI scores. Statistically significant (p=.02) Pts body satisfaction: Statistically insignificant (p=.98)

Barriers Preventing Providers from Addressing Obesity

Literature suggests various factors may deter primary care providers from addressing obesity with adult patients. Despite evidence that weight management advice from providers may increase patients' motivation and likelihood of participating in weight loss strategies, less than 40% of obese patients receive counseling and less than 1% of consultations focus on weight management (Dewhurst, Peters, Devereux-Fitzgerald, & Hart, 2017). Literature explores several barriers impacting primary care providers' obesity screening and counseling. Key obstacles include time constraints, insufficient confidence, inadequate knowledge and skill, belief that patients are not motivated to lose weight, assumption that patients will not be compliant with weight loss treatments, negative stereotypes towards obese individuals, and fear of upsetting or embarrassing the patient (Dewhurst et al., 2017; Phelan et al., 2015). Understanding potential barriers was necessary for the purpose of my project in order to develop appropriate approaches that may improve adherences to clinical guidelines involving obesity.

Positive Outcomes Associated with Motivational Interviewing (MI)

MI offers an empathetic, nonbiased approach that supports lifestyle changes founded on patients' readiness and desire to change (Ceccarini, Borello, Pietrabissa, Manzoni, & Castelnuovo, 2015). Incorporating MI into clinical practice has demonstrated improvements in patient outcomes, provider comfort in addressing obesity, and patient/provider relationships. A systematic review by Lundal et al. (2013) suggests MI used during consultations is associated with improved weight loss among patients. The beneficial influences of MI and weight loss among patients is further supported in a meta-analysis study by Sim, Lebo, Wang, Koball, and Murad (2016), that suggests reduction in patients' body mass index (BMI) after receiving MI

therapy. Similarly, a critical appraisal of research by Ceccarini et al. (2015) reveals 50% of research studies assessed demonstrate statistically significant outcomes involving reduction in patients' BMI and secondary obesity-related behaviors after receiving MI. A randomized-controlled trial by Reniscow et al. (2015) reveals significant BMI reduction after two years among patients receiving MI compared to patients receiving standard care. Findings from these studies are relevant to the purpose of my project by supporting MI as an effective and professional approach in addressing obesity that yield positive patient outcome. Successful weight loss results may improve providers' confidence in patients' ability to engage in weight loss strategies. Positive experiences and reinforcement may support positive attitudes and routine use of MI to address obesity within the clinical setting.

Provider Competency After Brief Educational Material Involving Motivational Interviewing (MI)

Literature appraised suggests lack of skill and confidence are the most prominent factors discouraging primary care providers from addressing obesity. A research study conducted by Nawaz et al. (2016) highlights this barrier, as 50% of primary care residents did not receive a passing score in preventative counseling prior to receiving brief educational interventions involving lifestyle medicine. Furthermore, none of the residents demonstrated competence in MI or behavioral counseling (Nawaz et al., 2016). However, this particular study suggests training focused on MI increases providers' discussion with patients regarding lifestyle medical issues, enhances providers' knowledge and confidence in discussing lifestyle concerns with patients, and improves providers' performance (Nawaz et al., 2016). Brief educational sessions focused on MI can influence effective utilization of MI among primary care providers lacking prior

therapeutic training (Barnes & Ivezaj, 2015). Furthermore, a study performed by Cucciare et al. (2012) indicates brief training protocols involving MI enhances providers' confidence in applying MI-related skills, enhancing patients' understanding of their disease and motivation to partake in beneficial lifestyle changes. Bearden (2016) performed a quasi-experimental study to determine if a brief educational session involving MI improves weight loss management by decreasing barriers and enhancing providers' confidence in addressing obesity with patients. Results show significant improvement in providers' confidence and increased weight loss counseling (Bearden, 2016). Together, results from these research studies highlight the positive impact of brief educational material pertaining to MI by enhancing primary care providers' knowledge, skills, confidence and routine practice.

Provider Attitudes and Brief Educational Material Involving Motivational Interviewing (MI)

The literature suggests negative perceptions and attitudes towards obesity serve as a fundamental barrier to discussion obesity and weight loss management (Dewhurst, Peters, Devereux-Fitzgerald, & Hart, 2017; Bearden, 2016). A study by Dewhurst et al. (2017) reveals primary barriers to addressing obesity involves pessimism regarding patients' ability to successfully lose weight, feelings of frustration and hopelessness in helping patients lose weight, and uncertain of responsibility for weight management. Findings from this study suggest providers desire increased knowledge and training in MI, nutritional awareness, how to address weight, and cognitive behavioral techniques (Dewhurst et al., 2017). Furthermore, providers with prior MI training reported less frustration in obesity counseling and management (Dewhurst et al., 2017). In a study by Bearden (2016), barriers to addressing obesity, such as negative

perspectives and attitudes, did not show significant improvement following brief educational intervention involving MI. Cucciare et al. (2012) conducted a study to determine the impact of brief MI training to healthcare staff members. Findings involving perspectives on lifestyle counseling and job-related burnout did not show significant improvement. Overall, these results demonstrate the importance of implementing interventions tailored to address specific needs and barriers that may negatively influence providers' adherence to obesity counseling and management recommendations.

Strengths, Weaknesses and Limitations

A key strength of the articles synthesized involves reliability due to the consistency of results and recommendations pertaining to the benefits of MI and the positive impact of brief training sessions among primary care providers. Furthermore, suggestions presented reflect evidence-based research. The large amount of supporting literature available also strengthens references and recommendations. Treatment fidelity is a prominent weakness among literature explored. Various articles did not assess providers' adherence to MI or current guidelines involving obesity over an extended period of time. Additionally, the majority of the articles synthesized focused on primary care providers, limiting the generalizability. Further research is needed to explore the influence of MI among various ethnicities, cultures, ages, and sociodemographic populations. Comprehending expectations and values of diverse populations may encourage success of MI in addressing obesity among a wide variety of patients. Furthermore, supplementary research should be performed to evaluate potential harm, such as financial resources utilized for the implementation of brief educational interventions rather than potentially more advantageous health care interventions.

METHODS

Design

In order to identify health care providers' confidence and attitudes in addressing obesity and determine if asynchronous provider education including motivational interviewing (MI) is an effective tool in increasing providers' confidence and attitude in addressing adult obesity in the primary care setting, a quasi-experimental pretest-posttest design was initiated. Quasi-experimental designs are particularly useful among clinical settings, considering a control group and randomization are not required (Rouen, 2017). This design provided a quantifiable measure to aid in analyzing the change associated with the implemented intervention (Rouen, 2017). Furthermore, a pretest-posttest design was integrated to generate data pertaining to providers' confidence and attitude in addressing obesity before and after receiving asynchronous educational content involving motivational interviewing.

Setting

The setting of this study represents a convenience sample of primary care providers and nurse practitioners from two primary care clinics in San Diego, California. Two clinics were included to incorporate numerous participants, considering many clinics have a limited amount of primary care providers. Furthermore, an increased sample size and various locations may provide supplementary insight to the target population and increase generalizability of outcomes. Primary care facilities involved in the study were current clinical rotation sites. Providers from each clinical site were personally invited to participate. Finalized participants involved providers that consented to participate in the quality improvement intervention and study.

Participants

The targeted population for the project is primary care physicians and nurse practitioners. The study will include providers from my clinical rotation sites, which includes eight providers. All eight providers will be invited to participate in the study.

Intervention

Primary care providers from my clinical rotation sites were personally invited to participate in the study via email. Each potential participant received a recruitment letter and disclosure form. The recruitment letter provided an invitation to participate in the study with a brief description of the project (Appendix A). The disclosure form provided supplementary information regarding the purpose of the project, as well as an overview of interventions participants were asked to complete (Appendix B). Participating clinics were personally asked for permission to collect survey data from the clinic's providers regarding their current knowledge and opinions regarding obesity management. Each clinical site signed a letter of approval for data collection. Site management agreed to email each participant a written consent and a link to the intervention. The intervention included a pretest, an educational asynchronous PowerPoint presentation focused on MI and potential knowledge deficits, and a post-test. The presentation was approximately 30 minutes in length. The presentation incorporated evidence-based research supporting the use of MI to effectively address obesity by reducing barriers that may dissuade providers from addressing obesity. Benefits associated with MI for both patients and providers was integrated. Furthermore, a basic summary of key components of MI implementation strategies were included.

This intervention was formulated to address the rising prevalence of obesity among adults. Although current guidelines recommend primary care providers screen all adults for obesity and offer or refer obese patients to intensive counseling and multicomponent behavioral interventions, more than half of providers do not routinely address obesity (USPSTF, 2012; Barnjee et al., 2013). Primary factors that may discourage providers' from addressing obesity involves lack of knowledge, skill, confidence and negative perspectives (Dewhurst et al., 2017; Phelan et al., 2015). This intervention is intended to provide primary care providers with educational material focused on MI as a strategy to confidently and effectively address obesity.

Numerous articles supporting this intervention were synthesized and discussed above in the Synthesis of Evidence section. In summary, brief training focused on MI may improve primary care providers' knowledge, attitudes, and adherence to clinical recommendations regarding addressing obesity with adult patients (Nawaz et al., 2016; Barnes & Ivezaj, 2015; Bearden, 2016). Increasing providers' confidence, knowledge, and attitudes in discussing obesity may enhance providers' adherence to current guidelines pertaining to obesity. MI is associated with improved patient outcomes and amplified provider satisfaction (Ceccarini et al., 2015; Lundal et al., 2013).

Process and Tools for Data Collection

Incorporating a pretest-posttest survey provided useful, valid and reliable quantitative data that was analyzed to guide conclusions regarding the effect of the intervention (Office of Quality Improvement, 2010). Survey questions were adapted from a pretest-posttest survey developed by Bearden (2015) to assess perceived barriers to addressing weight management and confidence among primary care providers. Pretest-posttest questions consisted of 18 identical

statements asking participants to personally report their knowledge and attitude regarding screening for obesity weight loss counseling. Statements were concentrated on knowledge and attitudes regarding obesity and addressing obesity with adult patients as well as perceived barriers. Participants reported their of knowledge and attitude on a five-point Likert-type scale with 5= strongly agree, 4 = agree, 3 = neutral, 2= disagree, and 1 = strongly disagree (Dev, McBride, Fiese, Jones, & Cho, 2013). This design was utilized to obtain definitive responses numerically (Appendix C & E).

In addition to reporting confidence levels on a five-point Likert-type scale, participants were asked to complete a free-response question at the end of each survey. The free-response question focused on perceived barriers that may hinder providers' discussion of weight loss with. Obtaining providers' views on perceived barriers addressed aspects that weren't discussed or weren't effectively discussed within the quality improvement interventions. Free response submissions helped guide revision and improvement for future implementation. Refining an intervention based on what was learned is consistent with the final stage of the PDSA cycle (AHRQ, 2013).

All participants received an email containing three separate links. The first link connected participants to the pretest survey. The second link included access to the asynchronous presentation, and the third link directed participants to the posttest. Pretest-posttest was completed through Qualtrics to ensure response anonymity. Prior to beginning the pretest, participants were asked to submit a four-digit self-identification code of their choice. Participants were required to enter the same 4-digit code for the posttest. This information was utilized to link individual-level participant pretest-posttest data while maintaining respondent anonymity

(Kristjansson, Sigfusdottir, & Sigfusson, 2015). Once participants entered a self-identification code, they were instructed to enter their educational attainment, profession, and years of experience as a medical provider. This information was used to define participant characteristics and helped determine whether or not education, profession and/or experience correlates with various survey responses and outcomes. Demographic questions only appeared on the pretest to avoid redundancy.

Once participants completed the initial required information, the pretest was displayed. Following completion of the pretest, participants were instructed to view an asynchronous presentation focused on MI (Appendix D). The asynchronous presentation was approximately 30 minutes to review. After reviewing the educational content, participants were instructed to complete the posttest survey (Appendix E). After completion of the posttest survey, participants finished the intervention.

Data Analysis

Descriptive analysis was utilized to analyze quantitative data from pretest-posttest surveys. The mean was analyzed for each participants' pretest and posttest answers. Descriptive analysis was utilized to measure the central tendency and variation of pretest-posttest survey responses (Rouen, 2017). It was anticipated that posttest results following asynchronous educational content would yield improved scores among providers' knowledge and attitude in addressing obesity and decreased scores in perceived barriers to addressing obesity.

Additionally, a frequency table was utilized to organize free-response answers. A frequency table provided a quantitative overview of free-responses and a summary of participants' perceived barriers that may hinder providers' discussion of weight loss (Polit & Beck, 2017).

Ethical Considerations

Respect for Persons

Participation were voluntary and informed consents were acquiring. Participants received thorough detail regarding the purpose of the project and participation instructions via email. Pre-test and post-test surveys were anonymous without personal identifiers to ensure privacy and confidentiality. Participants had the option to withdraw from the study at any point.

Beneficence

The project design supported gathering pertinent data appropriate for the study without risks to participants. Participants personally benefited from educational material provided during the study. All participants were treated equally with respect and benevolence.

Justice

Inclusion criteria consisted of primary care physicians and advanced practice nurses with an adult patient population. No discrepancies were made regarding years of experience, competence, personal characteristics, gender, age or race. All participants received identical pre- and post-test surveys. Participants appropriately represented primary care providers that may benefit from the research study.

Institutional Review Board (IRB)

The principal investigator collaborated with DNP committee members to produce a disclosure form involving the purpose of the project and participation details. The form was submitted to the University of Arizona IRB for review.

RESULTS

Demographics

A total of eight health care providers at the project sites were invited to participate in the study. One participant submitted a pretest only, therefore, responses were deemed incomplete and excluded from data analysis. Five out of the eight health care providers submitted responses to both the pretest and posttest survey in Qualtrics, for a response rate of 63%. Demographics are displayed in Table 2. Four possessed a doctoral/professional degree, and one possessed a master's degree. Two participants were Medical Doctors (MDs), two were Doctor of Nursing Practice (DNP) nurse practitioners and one was a Master of Science in Nursing (MSN) nurse practitioner. Years in practice ranged from less than five years to 30 years.

TABLE 2. *Demographics.*

	# of Responses	Percentage
Total Responses (N)		
Highest Level of Education		
Doctoral/Professional	4	80%
Masters	1	20%
Profession		
MD	2	40%
DO	0	0.0%
NP (Masters)	1	20%
NP (DNP)	2	40%
Years Practicing		
0-5	3	60%
6-10	0	0.0%
11-20	0	0.0%
21-30	2	40%
31+	0	0.0%
Years Practicing		

Knowledge

A total of 11 questions in the surveys represent provider knowledge involving key factors of motivational interviewing and managing obesity in the clinical setting. Knowledge pretest questions and individual and scores are listed in Table 3. Knowledge posttest questions and

individual answers are listed in Table 4. In order to conclude whether or not intervention implementation produced generalized improvement, each posttest mean responses was subtracted from corresponding pretest means. All mean posttest responses increased by at least 0.2, indicating an overall improvement in provider knowledge. Mean improvement scores ranged from 0.2-1.2 points. Knowledge of motivational interviewing to help patients lose weight had the highest overall improvement, while success in helping patients lose weight had the lowest overall improvement. A summary of pretest and posttest means along with overall improvement for each survey question is displayed in Table 5.

TABLE 3. *Knowledge pretest responses.*

Survey Question	P1	P2	P3	P4	P5	Mean
Using MI	2	3	3	4	3	3
Determine readiness	3	4	3	4	3	3.4
Brief counseling for WL	4	4	4	4	3	3.8
Prescribe WL plan	3	3	4	4	4	3.6
Assess unhealthy behaviors	4	4	4	4	4	4
Respond to questions	4	4	4	4	4	4
Determine realistic changes	4	3	3	4	4	3.8
Collaborate/refer	4	1	4	4	4	4
Manage/treat obesity	3	3	4	4	4	4
Help lose weight	3	3	3	4	3	2.8
Comfort addressing obesity	3	3	4	4	4	2.6

TABLE 4. *Knowledge posttest responses.*

Survey Questions	P1	P2	P3	P4	P5	Mean
Using MI	4	4	3	5	4	4.2
Determine readiness	4	4	3	5	4	4.2
Brief counseling for WL	4	4	4	5	4	4.2
Prescribe WL plan	3	3	4	5	4	4
Assess unhealthy behaviors	4	4	4	5	4	4.2
Respond to questions	4	4	4	5	4	4.2
Determine realistic changes	4	4	3	5	4	4
Collaborate/refer	4	4	5	5	4	4.4
Manage/treat obesity	4	4	4	5	4	4.2
Help lose weight	3	3	3	5	4	3.4
Comfort addressing obesity	4	3	4	5	4	4

TABLE 5. *Knowledge response means and outcomes.*

Survey Question	Pretest	Posttest	Total Improvement
Using MI	3	4.2	1.2
Determine readiness	3.4	4.2	0.8
Brief counseling for WL	3.8	4.2	0.4
Prescribe WL plan	3.6	4	0.4
Assess unhealthy behaviors	4	4.2	0.2
Respond to questions	4	4.2	0.2
Determine realistic changes	3.8	4	0.2
Collaborate/refer	4	4.	0.4
Manage/treat obesity	4	3.4	0.2
Help lose weight	2.8	4.2	0.6
Comfort addressing obesity	3.6	4	0.4
Total Mean Score	3.6	4	0.4

Attitude

Attitude was the second category assessed among survey responses. Seven pretest and posttest questions focused on provider attitude towards obesity. Provider attitude questions were further divided into two categories: positive and negative. Positive attitude questions represent factors that may encourage providers' efforts in addressing obesity in the clinical setting. Negative attitude questions address stigmas and perceived barriers potentially hindering providers discussion of obesity with patients. Attitude pretest questions and individual replies are listed in Table 6. Attitude posttest questions and individual responses are displayed in Table 7. Mean positive attitude posttest scores were subtracted from mean positive pretest scores to determine if improvement was achieved. The overall positive mean score increased by a total of 0.5 points, which indicates an overall improvement in positive attitude. Furthermore, the mean for each survey question increased by a minimum of 0.2 points, indicating improved attitude for constructive viewpoints regarding addressing obesity.

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further divided into two categories: positive and negative. Positive attitude questions include factors that may encourage providers' efforts in addressing obesity in the clinical setting. Negative attitude questions address stigmas and perceived barriers potentially hindering providers discussion of obesity with patients. Attitude pretest questions and individual replies are listed in Table 6. Attitude posttest questions and individual responses are displayed in Table 7.

Mean positive attitude posttest scores were subtracted from mean positive pretest scores to determine if improvement was achieved. The overall positive mean score increased by a total of 0.5 points, which indicates an overall improvement in positive attitude. Furthermore, the mean for each survey question increased by a minimum of 0.2 points, indicating improved attitude for constructive viewpoints regarding addressing obesity.

Contrary to all other survey calculations, improvement in negative attitude responses was analyzed by subtracting pretests mean scores from posttest mean scores in order to accurately represent improvement, considering higher scores are associated with stronger agreement towards negative attitudes. The overall mean negative attitude score showed a slight improvement of 0.2 points. Mean negative attitude scores for each survey question survey ranged from -0.2 to 0.4. Only 43% of response means showed improved, 43% were unchanged, and 14% regressed. Based on individual scores, belief that addressing obesity may offend patients had the lowest agreement rates, while lack of time had the highest agreement score. On average, belief that patient's will not adhere to weight loss treatments had the most improvement. Belief that obesity counseling and management is difficult was the only survey response to undesirably increase in agreement following intervention implementation. Attitude pretest means, posttest mean, and outcomes are displayed in Table 8.

TABLE 6. *Attitude pretest responses.*

Survey Question	P1	P2	P3	P4	P5	Mean
Positive Attitude						
Patients benefit	4	2	5	4	4	3.8
Obesity PCP's responsibility	4	5	5	4	4	4.4
Negative Attitude						
Difficult manage obesity	4	5	5	4	4	4.4
Difficult find time	5	5	5	4	5	4.8
Patients lack adherence	4	4	4	4	4	4
Patient lack interest	4	3	5	4	3	3.8
Offend patient	4	3	4	4	4	3.8

TABLE 7. *Attitude posttest responses.*

Survey Questions	P1	P2	P3	P4	P5	Mean
Positive Attitude						
Patients benefit	5	4	5	5	4	4.6
Obesity PCP's responsibility	4	5	5	5	4	4.6
Negative Attitude						
Difficult manage obesity	4	5	5	5	4	4.6
Difficult find time	5	4	5	5	4	4.6
Patients lack adherence	3	3	4	5	3	3.6
Patient lack interest	4	3	4	5	3	3.8
Offend patient	4	3	4	5	4	3.6

TABLE 8. *Attitude response means and outcomes.*

Survey Questions	Pretest	Posttest	Total Improvement
<i>Positives</i>			
Patients benefit	3.8	4.6	0.8
Obesity PCP's responsibility	4.4	4.6	0.2
Total Mean Score	4.1	4.6	0.5
<i>Negatives</i>			
Difficult manage obesity	4.4	4.6	-0.2
Difficult find time	4.8	4.6	0.2
Patients lack adherence	4	3.6	0.4
Patient lack interest	3.8	3.8	0
Offend patient	3.8	3.6	0.2
Total Mean Score	4.2	4	0.2

Perceived Barriers

Pretest surveys included a free-response textbox requiring participants to list two perceived barriers that may hinder provider discussion of weight loss with patients in the clinical setting. Out of 10 responses, five different perceived barriers were identified. Table 9 presents

reported barriers and number of associated responses. Lack of time was the most predominant barrier, reported by 50% of participants. Lack of patient interest in weight loss interventions was the second most reported barrier, followed by fear of offending the patient, lack of resources, and low priority level.

TABLE 9. *Perceived barriers.*

Perceived Barriers	# of Responses	Percentage
Time	5	50%
Lack of patient interest	2	20%
Offend patient	1	10%
Lack of resources	1	10%
Low priority	1	10%

DISCUSSION

Results Versus Expectations

Consistent with expected outcomes, findings from this quality improvement project demonstrate improvement in provider knowledge regarding MI as a communication strategy to facilitate the conversation of obesity with patients in the clinical setting. Furthermore, positive attitudes involving PCPs' role in addressing obesity and beneficial patient outcomes associated with weight loss counseling in the clinical setting supplemented intended outcomes. However, outcomes regarding negative attitudes and beliefs about obesity and obese patients varied. Although some response showed minimal improvement, several responses remained unmoved, and one response regressed following intervention implementation. Barriers consistent with negative attitudes towards addressing obesity involved lack of time, belief that obesity management and counseling is difficult, and lack of patient interest in weight loss discussion/management. Figure 2-6 displays outcome trends.

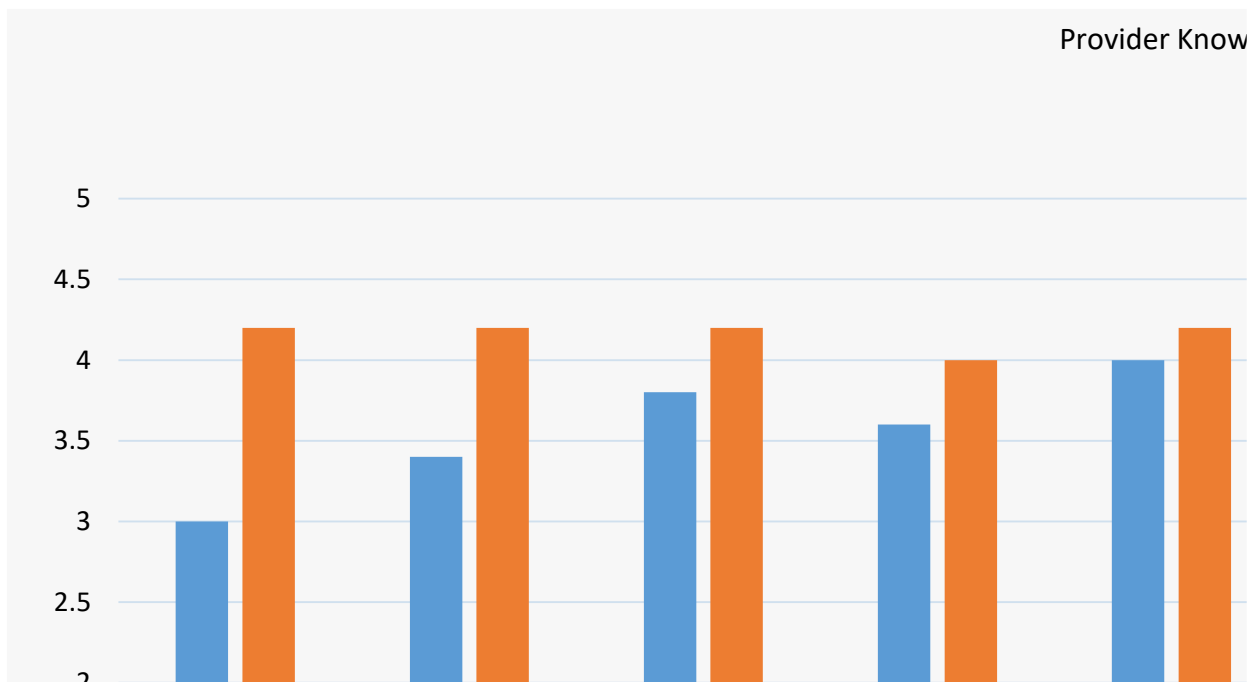


FIGURE 2. Provider knowledge: Pretest versus posttest mean scores. (Comparison of mean percent scores for knowledge, indicating improvement in all mean posttest responses, with the highest improvement in using MI with a 1.2-point increase.)

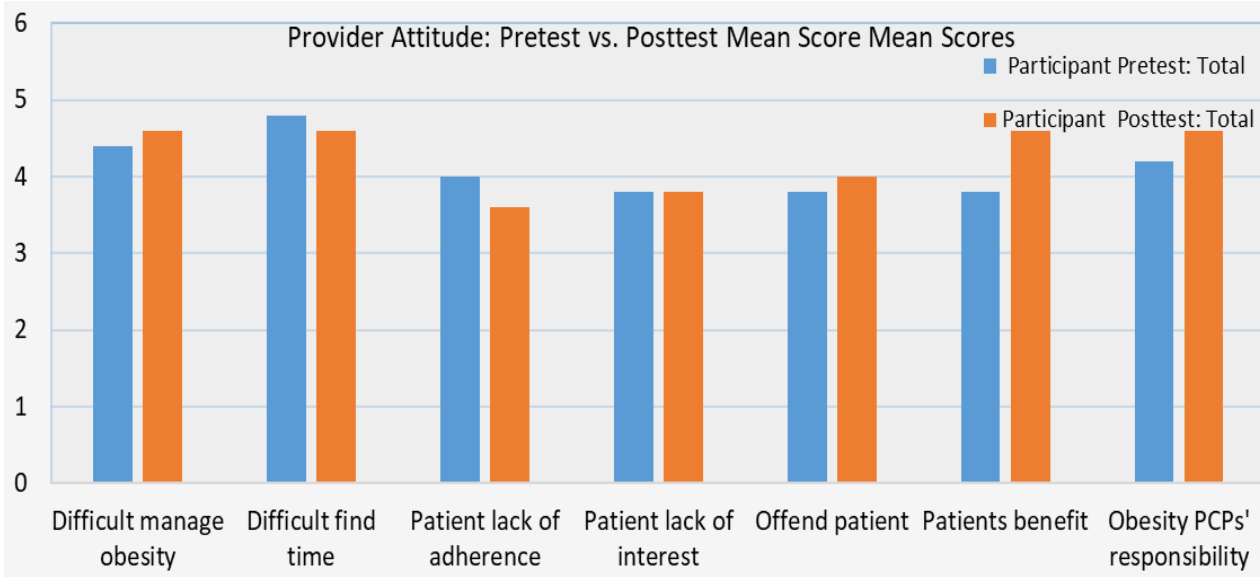


FIGURE 3. Provider attitude: Pretest versus posttest mean scores. (Comparison of mean scores of positive and negative attitudes.)

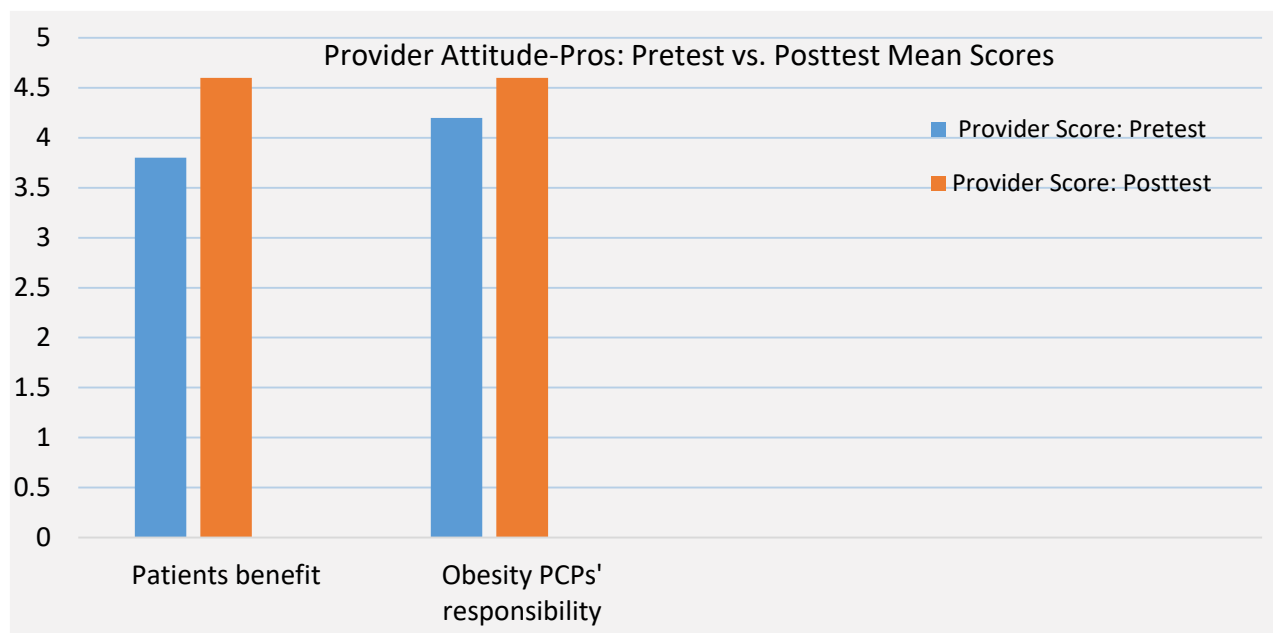


FIGURE 4. Provider attitude-pros: Pretest versus posttest mean scores. (Comparison of mean attitude scores based on survey questions associated with positive attitudes.)

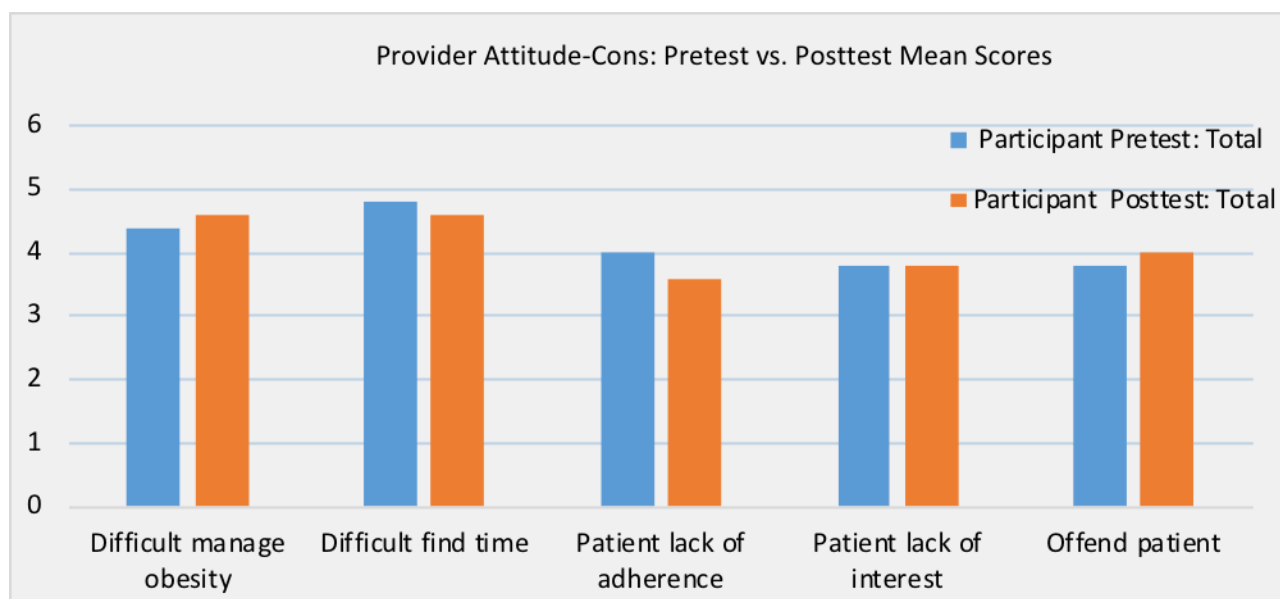


FIGURE 5. Provider attitude-cons: Pretest versus posttest mean scores. (Comparison of mean attitude scores based on survey questions associated with negative attitudes. Pretest scores subtracted from posttest scores to demonstrate downward trend is associated with improvement.)

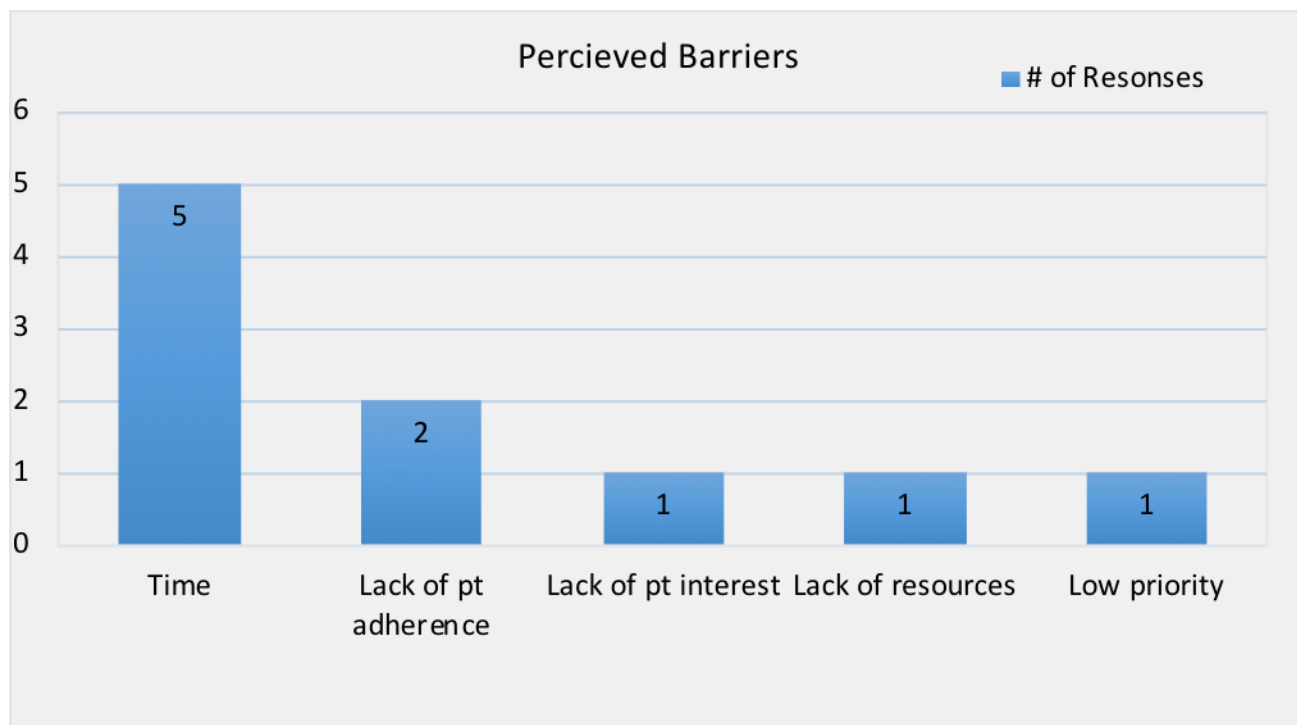


FIGURE 6. Perceived barriers. (Participant perceived barriers listed in free-text response.)

Trends from the quality improvement project align with common findings in the literature. Particularly, the literature suggests brief educational training involving MI is associated with increased participant knowledge of MI and confidence in counseling patients using MI (Bearden 2016; Edwards, Stapleton, Williams, & Ball, 2015; Cucciare et al., 2012). Positive attitude scores align with common opinions among providers that PCPs are responsible for addressing patients' health related concerns and weight loss management is imperative to reduce the obesity epidemic among adults (Halbert et al., 2018). Although providers may agree with these beliefs, negative personal perspectives and stigmas towards obesity are a significant barrier that may hinder PCPs' efforts to initiate recommended obesity screening and counseling in the clinical setting (Kominiarek, O'Dwyer, Simon, & Plunkett, 2018; Bearden 2016). Results from this study and the literature suggest deterring assumptions among PCPs involves the belief

that obese patients are not interested in weight loss and will not likely adhere to recommendations provided (Phelan et al., 2015). Unfortunately, obesity is a highly stigmatized conditions and negative perceptions are prevalent among society.

Although this project small sample size is not generalizable, NPs reported less confidence in ability to prescribe weight loss plans and manage obesity in the clinical setting compared to MDs. Moreover, NPs reported less success in helping patients lose weight. These findings were expected, considering NPs involved in the project had significantly fewer years of experience than MDs. Interestingly, findings revealed NPs had more positive attitudes towards obesity were than MDs. NPs and MDs had comparable strong beliefs that it is difficult to find time to address obesity. Time constraint was listed as a primary barrier perceived by all provider participants. This is not surprising, considering PCPs may have numerous health concerns to address during time-constrained appointments (Fitzpatrick et al., 2016).

Challenges and Limitations

The primary limitation of this study was the small sample size and short duration of the project. Furthermore, findings and outcomes from the sample population of PCPs are not generalizable to the population of PCPs at large. Although the study was not intended to be representative of San Diego nor Southern California, it does offer constructive insight regarding learning needs and attitudes of provides within this particular clinic. Further iterations of the PDSA cycle may impact use of MI and obesity management interventions.

Pretest/posttest surveys are usually a simple method to administer and can be useful for measuring knowledge, attitudes, and opinions. A five-point Likert scale was utilized for both pretest and posttest surveys, which produced the majority of data analyzed. Although surveys

were kept anonymous to minimize potential response biases, Likert scales may be associated with social desirability bias, acquiesce bias, and central bias (Echos, 2016). Response bias may reduce the reliability and validity of conclusions determined from participant responses. Future studies should consider the use of random sample to help reduce the likelihood of these potential biases.

Implementing a simple, brief pretest and posttest survey was applied to avoid overburdening participant providers, however, this restricted impact of quality improvement project evaluated. Particularly, the project did not assess the potential impact of gender, race, ethnicity, socioeconomic status, or other cultural influences that may impact provider knowledge and attitude regarding MI and obesity. Additionally, providers were not asked to include their current weight status. The literature suggests provider attitude regarding their own weight may influence self-efficacy and adherence to obesity screening recommendations in the clinical setting (Kominiarek et al., 2018). Future studies should include more extensive participant demographics and characteristics that may impact their knowledge and attitude regarding obesity and addressing obesity with patients.

Future Directions

After reflection on the process, trends, and outcomes of this quality improvement project, a rational next step that aligns with the PDSA cycle involves acting on what was learned from the study. Assessing successes, failures, limitations, and unintentional consequences may help facilitate appropriate intervention changes. Once modifications discussed above have been implemented, the PDSA cycle should be repeated. Future considerations also involve expanding changes to additional providers. To further promote quality improvement, knowledge and

lessons learned should be disseminated to internal and external stakeholders. To facilitate this, future plans include taking necessary steps towards publication and presenting the completed project to appropriate health care conferences and organizations

Conclusion

Motivational interviewing (MI) is an adaptable, patient-centered communication approach that can be implemented in diverse clinical settings to help facilitate provider discussion of weight loss with obese adult patients. This project examined potential causes of poor adherence to clinical guidelines regarding screening and management of obesity among primary care providers in San Diego, California, and tested a potential solution to improve provider confidence and attitude in addressing obesity by distributing an educational asynchronous presentation focused on obesity and motivational interviewing. This was accomplished through 1) Assessing PCPs' knowledge and attitude of obesity and effective management via pretest survey responses 2;) Assessing provider perceived barriers to addressing obesity in the clinical setting 3;) Developing and implementing an educational presentation addressing knowledge deficits, attitudes, and barriers reported in pretest surveys; and 4) Reassessing provider knowledge, attitude, and perceived barriers via posttest survey. Results demonstrated improvement in MI knowledge and confidence addressing obesity. However, outcomes revealed multiple barriers that may hinder providers from addressing obesity, particularly negative attitudes associated towards obesity and time constraints. Future studies focused on increasing provider MI and obesity management knowledge and addressing identified barriers is needed. Addressing these needs with future iterations of the PDSA cycle may impact provider attitudes and patient outcomes this clinical setting. This quality improvement work is an

important consideration given the escalating worldwide trends in obesity and associated morbidity and mortality.

APPENDIX A:
RECRUITMENT LETTER

Recruitment Letter

Greetings,

My name is Hailey Stritzke. I am registered nurse and a DNP/FNP student at the University of Arizona. I will be conducting a quality improvement project for my dissertation during the Fall 2018 entitled, *The Use of Motivational Interviewing to Increase Provider Comfort and Confidence in Addressing Obesity*. This project will involve primary care physicians and nurse practitioners in southern California. As a primary care provider, you are invited to participate in the quality improvement project. The project will involve a 30-minute educational asynchronous presentation that will be delivered via e-mail. The presentation can be viewed at your convenience. You will also be asked to complete an anonymous pre and post-intervention survey that will take approximately 15 minutes.

No patient data will be obtained during this project, and healthcare provider surveys will be anonymous. Furthermore, no data will be requested or recorded that would identify specific providers.

If you would like to participate in this project, please reply via e-mail (stritzke@email.arizona.edu) or contact me via phone (208-353-2189).

Sincerely,

Hailey Stritzke, BSN, RN

APPENDIX B:
DISCLOSURE FORM

Disclosure Form

The Use of Motivational Interviewing to Increase Provider Comfort and Confidence in Addressing Obesity

Hailey Stritzke

The purpose of this quality improvement project is to assess health care providers' confidence and comfort in addressing adult obesity at a southern CA primary care clinic (Shelter Island Medical Group) and its two satellite clinics, and determine if an 30 minute asynchronous provider education employing motivational interviewing anti-obesity techniques will be an effective quality improvement tool, increasing the providers' confidence and comfort in addressing obesity with adults in this primary care clinic (Shelter Island Medical Group) and its two satellite clinics.

If you choose to take part in this project, you will be asked to:

- 1) Complete an anonymous 18 question pre-intervention survey online. The link to the pre-intervention survey is provided in the invitation e-mail. The survey will take approximately 15 minutes to complete.
- 2) Review an educational asynchronous presentation. The presentation will be delivered via e-mail following completion of the pre-survey. It will take approximately 30 minutes to review the presentation.
- 3) Complete an anonymous 18 question post-survey after reviewing the educational asynchronous presentation. The link to the post-intervention survey will be included in the e-mail containing the asynchronous presentation. The survey will take approximately 15 minutes to complete.

There are no foreseeable risks associated with participating in this project and you will receive no immediate benefit from your participation. Survey responses are anonymous.

If you choose to participate in the project, participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw at any time from the project. In addition, you may skip any question that you choose not to answer. By participating, you do not give up any personal legal rights you may have as a participant in this project.

For questions, concerns, or complaints about the project, you may call Hailey Stritzke, BSN, RN at (208) 353-2189 or stritzke@email.arizona.edu

APPENDIX C:
PARTICIPANT SURVEY (PRE-INTERVENTION)

Participant Survey (Pre-Intervention)

The following survey is intended to evaluate provider comfort and confidence in addressing obesity with adult patients as well as perceived barriers in providing weight management counseling. Your opinions and/or individual preferences are important. This survey is anonymous. Thank you for sharing your time and input.

On a rating of 1 to 5 with 1 being strongly disagree and 5 being strongly agree, please answer the following questions:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1) I am confident in using motivational interviewing to help patients with weight management.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2) I am confident I can determine a patient's readiness and ability to engage in weight loss interventions.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3) I am confident I can provide a brief counseling intervention to help a patient lose weight.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4) I am confident I can prescribe a plan for weight management for obese patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5) I am confident I can obtain a diet history and assess for unhealthy behaviors in patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6) I am confident I can respond to a patient's questions regarding weight management.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7) I am confident I can assist a patient in setting realistic lifestyle changes for weight loss.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8) I am confident I can collaborate and refer patients to other providers, such as dietitians.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9) Weight loss counseling and management is difficult.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10) It is difficult to find time to address weight management with patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11) I am competent in weight loss management and feel qualified to treat obese patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
12) I am usually successful in helping patients lose weight.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
13) Patients are likely to benefit from weight loss counseling while being seen in primary care.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
14) Primary care providers are responsible for obesity screening and weight loss counseling.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15) Most patients with obesity will not adhere to weight loss recommendations	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
16) I feel comfortable addressing obesity with patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
17) Most patients are not interested in receiving weight loss counseling.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
18) Addressing a patient's weight will embarrass/offend the patient.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Please provide two (2) barriers you believe may hinder providers' discussion of weight loss with patients.					
1)					
2)					

APPENDIX D:
EDUCATIONAL POWERPOINT



Motivational Interviewing to Help Address the Issue of Obesity

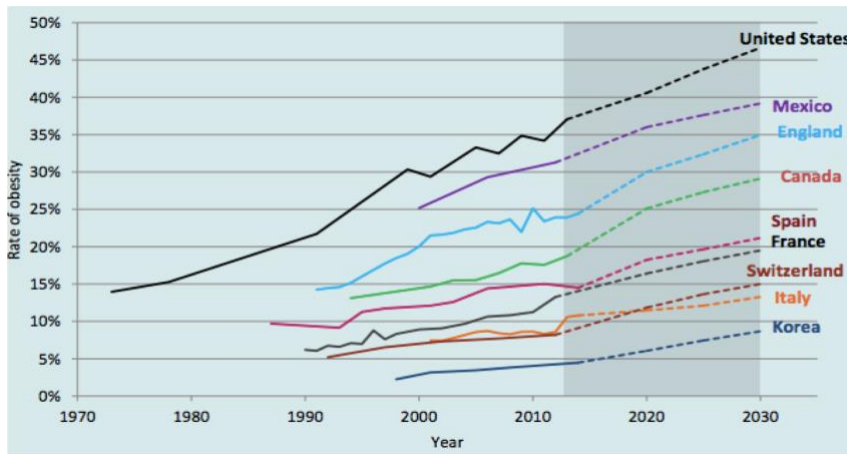
Hailey Stritzke, BSN, RN



Purpose & Learning Objectives

- Improve weight loss management by increasing provider confidence & comfort in addressing obesity with patients
- Utilize motivational interviewing communication strategies to overcome barriers in the management of obese patients

Obesity: Increasing Trends

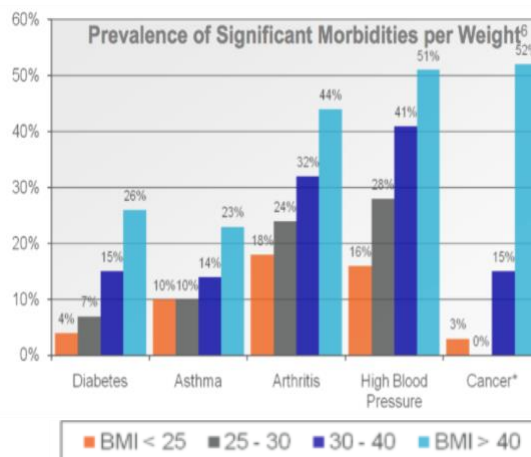
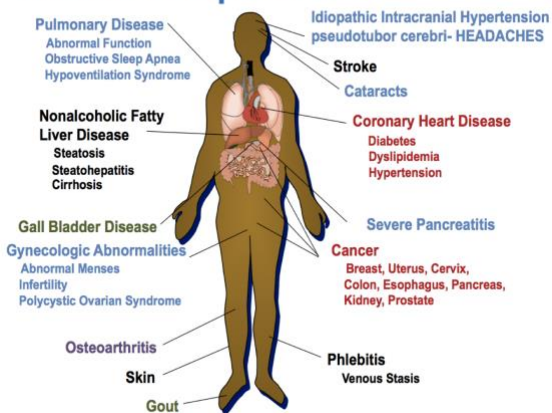


3

(OECD, 2017)

Obesity Related Co-Morbidities

Medical Complications



4

(St. Rita's Weight Management Center, 2018)

Obesity Management

- Providers should address weight loss with ALL overweight/obese patients
- Provider advice & support has a significant impact on patient behavioral modifications

5

(Veteran Affairs & The Department of Defense, 2014)

Motivational Interviewing

- Collaborative communication
- Exploring & resolving ambivalence towards change
- Taking action
- Sustaining behavioral modifications
- Promote change based on patients' preferences
- Active listening
- Non-judgmental

6

(Koithan, Galvin, & Tankenoff, 2017)

Self-Reflection

- The ability to listen is a fundamental competency to MI
- Presence & intention
- Do you intend to listen to the patient?
- Are you able to set aside personal bias?
- Do you begin to formulate a response before the patient is finished talking?

7

(Koithan, Galvin, & Tankenoff, 2017)

4 Basic Communication Skills

O.A.R.S.

- Open-ended questions
- Affirmation
- Reflective listening
- Summaries

8

(Koithan, Galvin, & Tankenoff, 2017)

Consider the situation...

When reviewing Bob's weight and BMI, you notice his BMI is 31 (obese) to initiate a conversation you state

A) "Wow you've gained 22 lbs since your last visit 2 years ago! What has gone wrong?"

B) "You've gained 22 lbs since your last visit 2 years ago, this increases your risk of serious illnesses like diabetes and high blood pressure."

C) "I see you've gained 22 lbs since your last visit 2 years ago, in the past 2 months is your weight going up, going down or staying the same?"

9

Appropriate Response

C) "I see you've gained 22 lbs since your last visit 2 years ago, in the past 2 months is your weight going up, going down or staying the same?"

- Meet the patient at their stage of readiness
- Do not assume patient has not initiated a weight loss attempt
- Identify strengths. Praise what the patient is "doing right".

10

Consider the situation...

When reviewing Bob's weight and BMI, he states...

- "Yikes that's a big number! I've been trying to lose weight. I've tried dieting a few times, but it never lasts long. However, I don't eat as much fast-food anymore. Rather than eating KFC for lunch with my coworkers, I pack a sandwich and eat on the benches by my office. I miss hanging out with them, but I don't miss the extra calories
- Both my dad and uncle were obese and died from a heart attack, so I'm sure I'll end up like them if I don't shape up!"

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How do you respond?

- **A)** What has motivated you in the past to change to a healthy diet?
- **B)** How often do you consume fast-foods?
- **C)** Why have your diets failed?

12

Appropriate Response

A) *What has motivated you in the past to change to a healthy diet?*

- Open-ended question
- Affirms Bob's previous interest in losing weight
- Allows him to provide more information about his motivation

(Koithan, Galvin, & Tankenoff, 2017)

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Why Not "Why" Questions?

- Open-ended, but may have unintended criticism or overtone
 - Patient may become defensive
 - Doesn't empower the patient
 - *"How can I help you with your weight loss goals?"*
- Rather than...
- *"Why don't your diets work?"*

(Koithan, Galvin, & Tankenoff, 2017)

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Back to Bob's Scenario...

Affirmations

- Positive reinforcements that may increase the patient's confidence
- Positively impact patient's outlook on their situation

Example

- *"You've already made some terrific changes to your food selections. Reducing your fast-foods intake is an excellent start."*

(Koithan, Galvin, & Tankenoff, 2017)

15

Reflective Listening

- Clarify what the patient is saying
- Repeating, paraphrasing, or empathizing
- Identify larger thematic issues
- Empower the patient to change their own meta-narrative

Example

- *"This is what I'm hearing. It sounds as though you miss hanging out with your coworkers during lunch more than you miss excess calories. Would any of your coworkers consider taking a walk with you during lunchtime?"*

(Koithan, Galvin, & Tankenoff, 2017)

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Summarizing

- Opportunities to check-in and verify you are actually hearing what the patient is saying
- Identify elements in the patients meta-narrative

Example

- *"Let's review what you've said. Due to your family history, you are concerned about the potential health consequences associated with your weight?"*

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(Koithan, Galvin, & Tankenoff, 2017)

4 Guiding Principles

R.E.A.D.S

- **R**oll with resistance
- **E**xpress empathy
- **D**evelop discrepancy
- **A**void argumentation
- **S**upport self-efficacy

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(Koithan, Michaels, & Galvin 2017)

Consider the Scenario...

- Bob comes back into the office 1 month later for a follow-up appointment. He was hoping to be down 3 pounds, but hasn't lost any weight.
- Bob: "I don't understand why I haven't lost any weight!? I still haven't been eating as much fast-foods, but I just don't think I can give up my nightly bowl of ice cream. It helps me relax before bed."

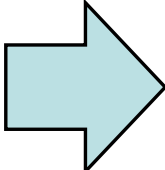
Roll with Resistance/Avoid Argumentation

- Avoid responding with direct confrontation or persuasion
 - Encourage conversation
 - Emphasize personal choice
 - Ignore antagonist statements
- Examples:
- *"May I tell you what concerns me?"*
 - *"I can provide my opinion as well as advantages and disadvantage, but it's really up to you."*
 - *Engage patient to explore healthy alternatives*

(Koithan, Michaels, & Galvin 2017)

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Express Empathy

- To understand the patient's situation & reflect an accurate understanding
 - Acceptance facilitates change
 - Skillful listening
- 
- Patients feel understood
 - Diminishes anxiety
 - Improves adherence
 - Enhances outcomes

(Koithan, Michaels, & Galvin 2017)

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Empathetic Responses

- “You seem frustrated”
- “From my understanding, you’re saying that you feel as though you need your ice cream every night”
- “It sounds like you are upset at not meeting your goal”

(Koithan, Michaels, & Galvin 2017)

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Develop Discrepancy

To help the patient recognize the contrast between what they desire and what they do

- Discrepancy among current behavior & important personal goals yields motivation for change
- Creates dissonance
- Patient should present argument for change

(Koithan, Michaels, & Galvin 2017)

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Discrepancy Examples

- **Repeat back pros & cons stated by the patient**

"So, on one hand you want to lose weight to avoid a future heart attack, but on the other hand you feel as though you need a bowl of ice cream every night?"

- **Ask questions about behaviors that contradict goals**

"At our last appointment you told me you wanted to avoid the complications your uncle and brother experienced. What are your thoughts on how this might affect your goal?"

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(Koithan, Michaels, & Galvin 2017)

Support Self-Efficacy

- Foster hope in the patient that they can achieve goals
- One's belief in the possibility of change is an important motivator
- Notice, support, & encourage attempts/thoughts of change
- Praise behavior, not patient

Example

- *"You were able to cut out an unhealthy eating habit before, I'm confident you can do it again. What worked for you last time?"*

25

(Koithan, Michaels, & Galvin 2017)

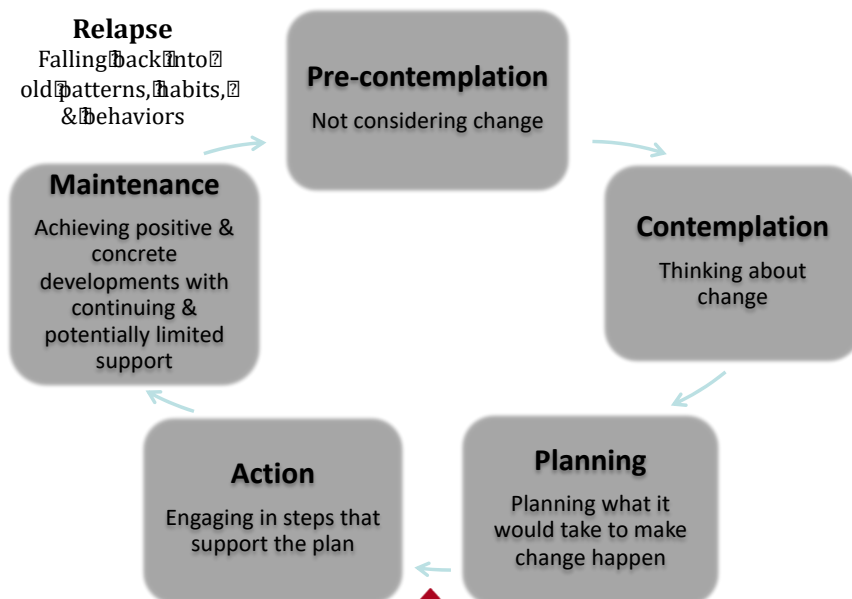
Review of Core Principles

- **Ambivalence:** Conflicting thoughts & feelings regarding a particular behavior or change that holds pros & cons
- **Discrepancy:** How things are & how they want them to be.
 - Tend to be motivated to limit discrepancy if it seems possible to do so

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(Koithan, Michaels, & Galvin 2017)

Stages of Change



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(Koithan, Galvin, & Tankenoff, 2017)

Stages of Change

- Change is a process, not an event
- Different stages along the change continuum
- Where a person is at on the continuum guides processes & interventions
- Processes often overlap, apply what works best for the patient & situation

28

(Koithan, Galvin, & Tankenoff, 2017)

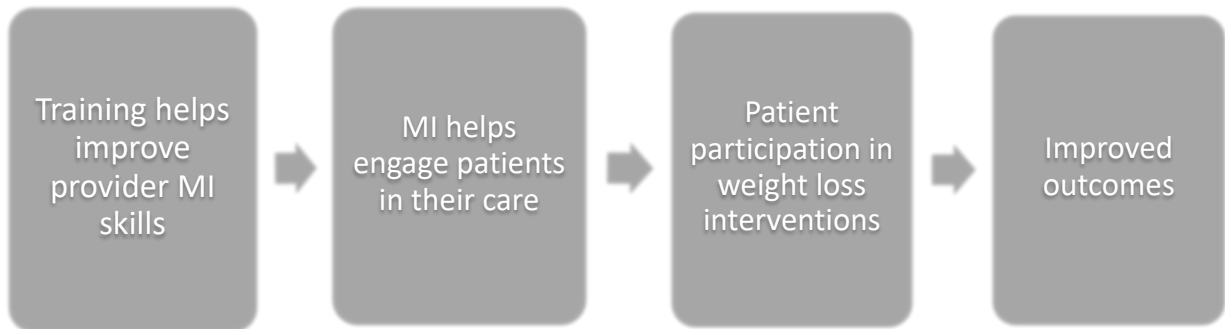
Summary: MI

- Convenient, cost effective, learnable
- Strategy to help patients' think differently about their behaviors
- Evidence-based health coaching
- Focused on ambivalence & resistance
- Enhance provider/patient relationship
- Improve outcomes

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(Ceccarini et al., 2015; Lundal et al., 2013; Barnes & Ivezaj, 2015; Koithan, Galvin, & Tankenoff, 2017)

Improved Satisfaction for Patients AND Providers!



30

(Ceccarini et al., 2015; Lundal et al., 2013; Barnes & Ivezaj, 2015; Koithan, Galvin, & Tankenoff, 2017)

THANK YOU

FOR YOUR TIME AND PARCIPATION!

31

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APPENDIX E:
PARTICIPANT SURVEY (POST-INTERVENTION)

PARTICIPANT SURVEY (POST-INTERVENTION)

The following survey is intended to evaluate provider comfort and confidence in addressing obesity with adult patients as well as perceived barriers in providing weight management counseling. Your opinions and/or individual preferences are important. This survey is anonymous. Thank you for sharing your time and input.

On a rating of 1 to 5 with 1 being strongly disagree and 5 being strongly agree, please answer the following questions:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1) I am confident in using motivational interviewing to help patients with weight management.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2) I am confident I can determine a patient's readiness and ability to engage in weight loss interventions.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3) I am confident I can provide a brief counseling intervention to help a patient lose weight.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4) I am confident I can prescribe a plan for weight management for obese patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
5) I am confident I can obtain a diet history and assess for unhealthy behaviors in patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6) I am confident I can respond to a patient's questions regarding weight management.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
7) I am confident I can assist a patient in setting realistic lifestyle changes for weight loss.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
8) I am confident I can collaborate and refer patients to other providers, such as dietitians.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
9) Weight loss counseling and management is difficult.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
10) It is difficult to find time to address weight management with patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
11) I am competent in weight loss management and feel qualified to treat obese patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
12) I am usually successful in helping patients lose weight.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
13) Patients are likely to benefit from weight loss counseling while being seen in primary care.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
14) Primary care providers are responsible for obesity screening and weight loss counseling.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
15) Most patients with obesity will not adhere to weight loss recommendations	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
16) I feel comfortable addressing obesity with patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
17) Most patients are not interested in receiving weight loss counseling.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
18) Addressing a patient's weight will embarrass/offend the patient.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

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