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Improvement of Weight Management Counseling in Primary Care

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Improvement of Weight Management Counseling in Primary Care

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Graduate Committee Approval

The Graduate Committee of Heather Kuriger
Hereby approves her research project as meeting partial
fulfillment of the requirements for the Degree of
Doctor of Nursing Practice

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ABSTRACT

There are cultural, genetic, fiscal, historical, and geographic factors that have contributed to Mississippi having the highest level of obesity in the United States. As the only available source of treatment for obesity for many patients, primary care providers need to feel prepared and effective in treating obesity, and need ways to address obesity that are respectful and person-centered. Motivational interviewing is a counseling process for behavior change that empowers the patient to determine their own goals, motivations, and strategies to establish weight reducing habits. A quality improvement project was developed for primary care providers to educate them on the concepts of motivational interviewing, and to equip them with information in the electronic medical record to act as a framework for the process of weight reduction counseling during a primary care office visit. Participants were provided with a link to an electronic inventory of their perceptions of the process of weight reduction counseling and knowledge of concepts related to person-centered weight management topics and person-first language. An educational video was created by the researcher that introduced the concepts of motivational interviewing, and a template was created for the electronic medical record that guided the provider through documentation and patient instructions. After implementation of the 60-days pilot program, providers were asked to complete another inventory to see if their perceptions changed and an evaluation of the electronic template and resources. Results indicated that participants did not perceive an improvement in comfort level with weight reduction counseling but did perceive an improvement in effectiveness. When asked questions related to consent and person-first language, participants showed an improvement in grasp of person-centered care concepts.

Participants stated that they found the educational video and electronic templates to be beneficial to their practice. It is concluded that education for primary care providers regarding motivational interviewing for weight management counseling should continue across the state to improve the quality of care provided to patients with obesity.

DEDICATION

I dedicate this work to my parents. No part of my career nor any accomplishment I may ever have could have been possible without my beloved parents Michael and Brenda Kuriger. If I have faith, compassion, diligence, or excellence, it was first modeled by them. They have sacrificed so I could have a better life, no less during the time I devoted to completing this degree. I love you both with all my heart. I must thank my grandmothers Barbara Kuriger and Louise Holmes who taught me how to love and to cook, usually at the same time. To Kari and Brandi, thank you for understanding when I could not be around because I had another few papers to write, but for being there when I needed to escape, possibly to another continent. Thank you to everyone at St. Dominic Family Medicine for being my cheerleaders. Dr. Cynthia Allen, as my primary care provider for the last 30 years, you have supported me with respect and compassion on my journey to health. Thank you to Corinne Crabtree and all the No BS Women, especially those in my accountability groups, who share this journey with courage, vulnerability, and tenacity.

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To Christy Davis DNP, thank you for serving as my DNP Mentor and friend. Your dedication to excellence in obesity management and advocacy for people with obesity encourages me to make this project a lifelong part of my practice. You and I will not stop until we see patients with obesity have access to the care and resources they need to live a healthy life.

To my fellow DNP candidates, thank you for welcoming me to "The W" for the first time. Our laughter, encouragement, and teamwork made this journey a joyful one, and I will miss our rare but precious days together.

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Mississippi has the highest rate of obesity of any state in the United States (CDC 2021) with the most recent results showing 39.7% of Mississippians self-reporting as obese, defined by the Centers for Disease Control as Body Mass Index of greater than 30 kg/m2. There are cultural, genetic, fiscal, historical, and geographic factors that have contributed to the level of obesity in Mississippi. If this is the prevalence in the general public, it is easy to surmise that the primary care provider would encounter an even higher percentage of their patient population that is overweight or obese. In fact, a successful primary care provider in Mississippi must be skilled in treating diabetes, heart disease, and osteoarthritis, all of which trace back to obesity as a contributing factor. Primary care providers need to be skilled at assisting their patients in weight reduction as a part of their plan for treating the related diseases.

Background

Obesity is not only the presence of excess body fat, but a complex metabolic state that has been characterized by the World Obesity Federation as "a chronic relapsing progressive disease process" (Bray et al., 2017). Over the past three decades, the recognition that obesity is more than just a personal choice, but a medical condition, has occurred through policies and position statements from important government and professional organizations, such as the National Institutes of Health, the Internal Revenue Service, the Centers for Medicaid and Medicare Service, the American Association of Clinical Endocrinologists, and the American Medical Association (Kyle et al., 2016). Obesity causes a fourfold increased risk in cardiovascular disease, which is already the leading cause of death in the United States. Over 100,000 cases of cancer every year are

attributed to endometrial, esophageal, pancreatic, kidney, gall bladder, breast, and colorectal cancers, which are associated with excess body fat (Marcel, 2018). Patients who are overweight have an increased risk of developing diabetes by a factor of three, and patients with obesity, by a factor of seven (Hruby & Hu, 2015). Obesity confers an elevated risk of trauma complication, surgical complication, post-surgical or hospital acquired infection, longer hospital stays, longer need for mechanical ventilation, and increased risk of in-hospital mortality.

With a disease process so prevalent in the state of Mississippi, primary care providers were the first contact for many people with obesity. However, research shows that primary care providers face multiple barriers when addressing obesity with their clients. The National ACTION study (Kaplan et al., 2018) surveyed 3,008 people with obesity (PwO) and 606 health care providers (HCP) and found that 65% of HCPs thought that patients did not initiate conversations about weight because they were embarrassed. More commonly (44%), PwO felt that losing weight was their responsibility, and not something to discuss with their provider. Alberga et al. (2019) found that PwO were likely to avoid seeking health care due to past experiences of contemptuous, patronizing, and disrespectful treatment.

In a study of over 5,000 primary care physicians, treatment for obesity was considered by the physicians as less effective than therapies for 9 of 10 chronic conditions and only 14% felt they were usually successful in helping patients lose weight (Foster et al., 2003). About 40% of physicians felt that it was unlikely that patients with obesity would lose a significant amount of weight. Over half of the physicians studied (53.9%) stated they would spend more time working on weight management if they felt

their time was reimbursed appropriately. In a study that contradicts the opinion that lack of time is a barrier in addressing weight management, Hebl & Xu (2001) found that providers spent significantly less time with patients with obesity (22 to 25 minutes) than patients with normal weight (33 minutes).

Problem Statement

Knowing that obesity is a serious problem in Mississippi with cultural, fiscal, and genetic factors, and contributes to health and economic problems in the state, primary care providers are uniquely situated to address weight reduction. Primary care providers are not without guidance from multidisciplinary bodies of experts about how to approach weight reduction, especially in patients facing the most common health outcomes related to obesity which are type 2 diabetes and cardiovascular disease. The American Diabetes Association (ADA) (2021) made obesity management part of their Standards of Medical Care in Diabetes, indicating the importance of obesity management in the treatment of diabetes and the responsibility to use a patient-centered, inclusive, and non-judgmental approach. The American Diabetes Association recommendations include use of person first language, acknowledgement of health disparities affecting care, and a multi-disciplinary approach using lifestyle intervention, pharmacologic therapies, metabolic surgery, and behavioral counseling as appropriate. Finally, the provider should assess the patient's readiness for behavior change related to weight loss, and goals and strategies should result from a collaborative process between provider and client. The American Heart Association Guideline for the Management of Overweight and Obesity in Adults, released in 2013, also directed providers to assess the client's cultural and environmental factors contributing to obesity, assess the client's readiness for behavioral change, and

implement joint decision-making related to goals and strategies for weight loss. The common theme between these two esteemed bodies was the collaborative partnership between the provider and the client to create person-specific goals and strategies to address weight.

Purpose of the Project

The barriers to the effective provider-client relationship related to weight reduction counseling illustrate the need to make the process of weight management in primary care feel comfortable and effective to providers. Providers need language to address obesity that is person-centered and free of bias. Motivational interviewing is a counseling process for behavior change, initially developed in the treatment of substance abuse, but could also be used for health-related behavior change (Petrolienė, 2013). The main concepts are creating a collaborative partnership with the patient, evoking the patient to determine their own skill and motivation, and facilitating the patient's autonomy to determine their own strategies for change. The goal is to empower the patient to determine their own goals, motivations, and strategies to establish weight reducing habits. A quality improvement project was developed for primary care providers to educate them regarding the concepts of motivational interviewing, and to equip them with information in the electronic medical record to serve as a framework for the process of weight reduction counseling during a primary care office visit.

Population and Setting

The population addressed was primary care providers in Central Mississippi. Most of the practice of primary care in Mississippi involves treating patients with obesity, as well as the resulting disease states of diabetes, hypertension, hyperlipidemia,

osteoarthritis, and sleep apnea. The accessible population included physicians and nurse practitioners employed by St. Dominic Family Medicine Associates, a nonprofit, faith-based hospital-associated family practice group in central Mississippi. None of the providers had any previous training or experience specific to obesity management outside of primary care. The surveys and educational video were available online for the providers to view at the time and place of their convenience.

Objectives of the Project

The objective was for primary care providers to indicate increased comfort and perceived effectiveness in addressing weight reduction during primary care visits so that they would likely address weight more often and in a way that provides dignity and autonomy to patients. They would also indicate that the documentation and patient instruction in the electronic health record made the encounter smoother and created a useful output for patient education and resources.

PICOT Question

The intervention was an educational program for primary care providers that included instruction on Motivational Interviewing (MI) as a therapeutic process for evoking behavior change (Jones-Smith, 2016) resulting in weight loss. Motivational Interviewing is a term that recurred throughout the project and will be defined more completely in the explanation of the theoretical framework. The intervention also included the creation of a History of Present Illness (HPI) template related to weight reduction within the electronic health record that met the documentation requirements for the visit. There was no comparison available as there was not a system or process in place that standardized the process or documentation of weight reduction counseling in primary

care specifically utilizing motivational interviewing. Changes in provider perceptions of weight management counseling were assessed and measured. The intervention began with an online educational video presented by the researcher, followed with a 60-day period of implementation of the process and the templates within the electronic health record. The participants completed an electronic questionnaire before and after the intervention regarding their opinion of their comfort and effectiveness in obesity counseling.

The resulting PICOT question was "Does an educational intervention for primary care providers in Central Mississippi on Motivational Interviewing and an electronic health record templates to support its use, improve perception of weight management counseling, over a 60-day time period?"

Theoretical Framework

Imogene King's Theory of Goal Attainment recognizes nursing as a process that is interactional in nature (Butts, 2018). The goals, needs, and values of the nurse and the client affect the interaction process. The interactions lead to critical transactions that result in goal attainment. The goals become the criteria for measuring the effectiveness of nursing care. King's theory of goal attainment assumes that individuals are social, sentient, rational, reacting, perceiving, controlling, purposeful, action-oriented and time-oriented beings.

The Basic Psychological Needs Theory (Legault, 2017) states that just as humans have basic physical needs like water, food, and shelter, humans also have the basic psychological needs of autonomy, competence, and relatedness. Autonomy is the need to be self-directed and free, which mirrors the idea from King that individuals are

controlling and purposeful. The basic psychological need for autonomy also speaks to King's assumption that individuals have a right to participate in decisions that influence their life, their health, and community services, as well as the right to accept or reject health care. The basic psychological need of relatedness, the need to feel connected to others, speaks to King's assumption of individuals as social and sentient. Finally, humans require competence, or to feel effective, which relates to King's assumption of individuals as purposeful and action oriented. This includes King's assumption that health professionals have a responsibility to share information that helps individuals make informed decisions about their health care.

Motivational interviewing is a therapeutic process for counseling clients on behavior changes with three main concepts that mirror both basic psychological needs and King's assumptions about individuals. The first concept is that the clinician creates a collaborative partnership with the client, where the client's motivations and goals are of primary importance. This fulfills the assumption of social individuals and the need for relatedness. The second concept is that the clinician will evoke the client's motivation and strategies for behavior change, allowing the client to make choices from their perceived abilities and resources. This concept illustrates the individual as purposeful and rational and fulfills the basic psychological need of competence. Finally, the concept of autonomy, present in both motivational interviewing and basic psychological needs, demonstrates King's assumption that individuals have the right to make decisions that influence their life and health, rather than the clinician imposing specific strategies or goals that may not be congruent with those of the client (Jones-Smith, 2016).

King (Butts, 2018) states that goal making is a shared, collaborative process where the clinician and the client share information for the purpose of setting and attaining goals, which is pertinent to the underpinnings of this project. Primary care providers were educated and equipped to use a collaborative process to solicit goals and strategies for behavior change related to weight reduction.

Review of Literature

There is sufficient literature to support the importance of weight reduction as prevention and treatment for a wide variety of disease, including cardiovascular, metabolic, oncologic, orthopedic, neurologic, and psychological pathology. The literature exhibits gaps in determinning treatment options that are safe, effective, sustainable, affordable, and widely available. Though national guidelines direct primary care providers to the model of patient centered, collaborative care, often the wide variety of education, experience, and skill in providing that care means that some providers do not feel equipped in practical, efficient methods that will bring both dignity and results to patients. See Appendix A for keywords utilized through online databases of Fant Memorial Library website, as well as Google Scholar and PubMed.

With the goal of improving provider perception of weight reduction counseling, the study by Alfadda et al. (2021) illuminates variables affecting when and how primary care providers address weight. An online survey of 2,331 health care providers in 11 countries was collected to see if the providers were completing aspects of the “3D approach: Discussion, Diagnosis, and Direction”. The study sought to determine in what proportion of their patients with obesity did health care providers initiate a discussion about weight, enter a diagnosis of obesity, and schedule a follow up appointment

specifically to address weight and what variables might increase that percentage. If providers entered a diagnosis of obesity, or indicated that they felt comfortable discussing weight reduction, they were more likely to initiate discussions of weight during the visit. If the provider indicated they were motivated to help their patients lose weight or recognized the impact of obesity on their patients' over-all health, they were more likely to initiate a conversation about weight. Accordingly, if the provider initiated a discussion about obesity, or had a habit of recording a diagnosis of obesity, the provider was more likely to enter a diagnosis. The variables with the greatest impact on the odds of the health care provider creating follow up appointments to address weight were recording the diagnosis of obesity in the medical record, perceiving that discussing weight with patients was helpful, and believing that their patients could lose weight easily. Not considering themselves an expert on obesity had a negative effect on the rate of initiating conversation about weight and the rate of creating follow up visits to address weight. Health care providers' comfort and motivation in addressing weight have a direct effect on patient engagement regarding weight. Increasing education and training for health care providers would improve the quality of care for patients.

One of the strengths of the motivational interviewing process is the evocation of the client's belief in their own abilities, and the results that motivation produces. The study by Rodriguez-Cristobal et al. (2017) was a randomized controlled study with 864 total participants, 400 of whom were in the intervention group. All participants received the usual protocol of counseling on caloric reduction and physical activity, but the intervention group participated in Motivational Interviewing (MI) interventions twice a month for the first 12 months, followed by once a month for an additional 12 months.

The MI was performed by a nurse who was trained by expert psychologists in the practice of motivational interviewing. The primary outcome was a reduction in body weight of 5% and maintenance over time. In the first year, the control group lost a mean of 1.3 kg and 16.6% of participants lost at least 5% of their body weight. The intervention group lost a mean of 1.8 kg, and 22% lost at least 5% of their body weight which did not reach statistical significance. However, the second year, the control group lost a mean of 1.0 kg and 18.1% of participants lost 5% body weight, while the intervention group lost a mean of 2.5 kg and 26.9% of participants lost 5% body weight, which did reach statistical significance. The results of this study point out the importance of motivation and psychological support in the maintenance of weight loss over time.

To assess the efficacy of motivational interviewing specifically to women, Suire et al. (2020) completed a meta-analysis and systematic review of nine random controlled studies completed between 1990 and 2020. Prior to 1990, motivational interviewing was primarily used for substance abuse counseling, not for other health care behavior changes. This study reported on changes in ten anthropometric changes, with the primary outcome being reduction in body mass index (BMI). Five out of six of the studies that measured BMI showed a statistically significant reduction in the MI group versus the control group, and the study that did not show a difference had a statistically significant drop in BMI from pre-to-post intervention, so that all MI groups had significant BMI decline. Six of the nine intervention groups that measured weight showed a statistically significant weight reduction compared with control groups. The other three groups did show weight loss, but were not statistically superior to the control group, meaning all MI groups showed weight loss. Secondary outcomes that showed improvement were waist

circumference, blood pressure, and hemoglobin A1c. Several studies showed improvement in diet quality, adherence or attendance to meetings, as well as motivation and self-regulation constructs. Interestingly, the conclusion section of this paper also identifies Self-Determination Theory and basic psychological needs as driving forces behind motivational interviewing, indicating that the MI process assists in the internalization and perpetuation of the desired health behavior change. Empathetic communication, non-judgmental responses, autonomy, and self-efficacy were identified as MI concepts that can have positive impact on behavior changes leading to health care outcomes.

A 2008 study by Befort et al. sought to determine if the addition of MI to a culturally targeted behavioral weight loss program for African American women would improve adherence, diet and physical activity behaviors, and weight loss outcomes. Sustained motivation may be especially difficult for African American women due to socioeconomic and cultural factors. The site of this intervention was a health care facility serving a lower income population. Forty-four women were randomized to a 16-week behavioral weight loss program with an additional four MI sessions, or the same weight loss program plus four health education sessions. Results showed that participants in both groups lost a significant amount of weight and reduced their dietary intake, but adherence and improvements in weight and diet did not differ between the groups. Contrary to the expectation for MI, both groups reported a decrease in motivation and self-efficacy from baseline to the end of treatment. In the discussion, the authors mentioned that interventions that address competing stressors and reducing barriers might be necessary in this population.

In response to the American Heart Association recommendation of MI as an effective approach to promote health related outcomes, an intervention was designed by Hardcastle et al. (2013) to measure the effectiveness of MI in maintaining reductions in cardiovascular risk factors. Primary care patients were randomized to an intervention group that received standard exercise and nutrition information plus up to five face to face MI sessions over a six-month period, or to a minimal intervention comparison group that received the standard information only. The results showed significant difference in walking and cholesterol. Overall improvement in blood pressure, BMI and weight were not maintained, but obese and hypercholesteremic patients at baseline exhibited significant improvement in BMI compared to those in the comparison group.

Emerging adults are at high risk for becoming overweight and obese, but traditional behavioral weight loss interventions do not meet the needs of individuals in this developmental stage, a dynamic phase of life with frequent changes in romantic partners, living situations, and work or educational environment. An intervention by LaRose et al. (2020) utilizing MI with online self-monitoring and online content viewing was aimed at improving engagement, retention, and weight loss. The study with emerging adults failed to show reduction in BMI, but did improve engagement and retention, which is meaningful given the association between engagement and better weight loss outcomes.

In targeting overweight women with Type 2 Diabetes, West et al. (2007) designed a controlled study of the long-term efficacy of motivational interviewing to enhance weight loss and metabolic control. A group of 217 women were randomized to individual sessions of motivational interviewing or attention control, for a total of five sessions, as

an adjunct to an 18-month weight control program. Primary outcomes were weight and Hemoglobin A1C at 0, 6, 12, and 18 months. Women in the MI group lost significantly more weight at 6 months and 18 months, mediated by enhanced adherence to the behavioral weight control program. African American women lost less weight than white women overall and appeared to have less benefit from the MI intervention. Significantly greater Hemoglobin A1C reductions were observed in the MI group at 6 months, but not at 18 months.

Mississippi is an example of states with the highest levels of obesity offering the least amount of insurance coverage for obesity treatment (Waidmann et al., 2022) There are four areas of coverage for obesity management: screening and counseling by primary care providers, nutritional counseling by a registered dietician, anti-obesity medications, and finally, bariatric surgery. Medicare, which is mandated by the US Congress, covers screening and bariatric surgery. Nutrition counseling is covered only for other medical conditions like diabetes or cardiovascular disease, but not for obesity. Mississippi Medicaid covers screening only. It does not cover nutrition counseling or anti-obesity medication. Mississippi is one of only two states where Medicaid does not cover bariatric surgery. Employees of the State of Mississippi are covered by employer paid health insurance which covers screening, nutrition counseling from a dietician, and bariatric surgery, but not anti-obesity medication. Mississippi has a benchmark for insurance policies bought through the Healthcare Marketplace, created by the Accountable Care Act. The state's benchmark mandates only that policies cover screening for obesity, but not nutritional counseling by a dietician, bariatric surgery, or anti-obesity medications. Currently only two states mandate that their Marketplace policies cover anti-obesity

medications. Anti-obesity medication is the least covered option in all categories. Screening and counseling by primary care providers is the only coverage that is available to all the insured. As an estimated 1.2 million Mississippians self-identify as obese, it falls to primary care providers to open the dialogue with patients and motivational interviewing is a patient-centered, collaborative framework for that conversation.

Implementation/Methodology

This was a quality improvement project with the goal of improving primary care provider perception of comfort and effectiveness in management of obesity, and adherent to the guidelines of Mississippi University for Women. The project proposal was completed and approved by the advisor in Fall of 2021. Prior to implementation, approval was obtained from the Mississippi University for Women Institutional Review Board in May 2022 and Franciscan Ministries of Our Lady Office of Research and Grant Administration in August 2022 (See Appendices B and C). Convenience sampling was utilized for data collection. Participants were recruited at the St. Dominic Family Medicine Association (SDMA) Quarterly Provider Meeting in August 2022 as well as through a social networking thread for SDMA providers. Providers were supplied with a link to an electronic inventory of their perceptions of the process of weight reduction counseling in October 2022 (see Appendix D). Questions addressed their comfort with initiating conversations about weight, their perception of their own skill and effectiveness at weight reduction counseling, and knowledge concepts related to person-centered weight management topics and person-first language. An educational video was created by the researcher that introduced the concepts of motivational interviewing, especially regarding person-first language, consent to discuss weight, patient-centered collaboration,

and evocation of motivation and self-efficacy. A template was created for the electronic medical record that guided the provider through documentation of the counseling including patient-directed goals, motivations, and strategies. "Simple Strategies for Weight Loss" was created for patient instruction that recommended books and strategies that follow the Motivational Interviewing principles. These resources were provided to participants by email and in the SDMA provider thread. Providers were asked to watch the video, implement the template and the motivational interviewing process with patient consenting to weight reduction counseling. After implementation of the 60-day pilot program, providers were asked to complete another inventory to see if their perceptions changed, as well as an evaluation of the electronic template and resources (See Appendix E). The surveys were developed by the researcher, and therefore, only have face validity. They were evaluated by advisors and submitted with the IRB application for approval. Data collection was completed in January 2023. Final defense of the project was completed in April 2023.

Results

Six participants answered the initial survey including one physician and five nurse practitioners, and 50% of respondents had practiced in primary care for more than 5 years. Five participants completed the second survey after 60 days. Due to the small number of responses, descriptive statistics were compiled and evaluated by the researcher. When asked about their comfort level with addressing weight reduction with primary care patients, the initial survey indicated that 66% responded very comfortable and 33% responded moderately comfortable. The final survey indicated 60% responded very comfortable and 40% responded moderately comfortable (see Figure 1). This

represents a decrease in confidence with the mean value decreasing from 3.67 to 3.60 (See Table 1). The initial survey asked respondents to rate the effectiveness of their efforts in weight reduction counseling, with 16 % reporting mildly effective, and 83% responded as moderately effective. After viewing the video, the survey indicated that 40% responded with moderately effective and 60% responded with very effective (see Figure 2). This represented an improvement of the mean score from 1.83 to 2.86 (See Table 2). When asked to recognize person-first language related to persons with obesity, the percentage of correct responses increased from 33.33% to 60% from the initial to final survey (see Figure 3). In the final survey, 100% of respondents stated they found the teaching video to be applicable and useful to their practice. One respondent stated they didn't try to use the documentation template or patient instructions, but 80% stated they found it useful.

Figure 1

Comparison for Comfort Addressing Weight

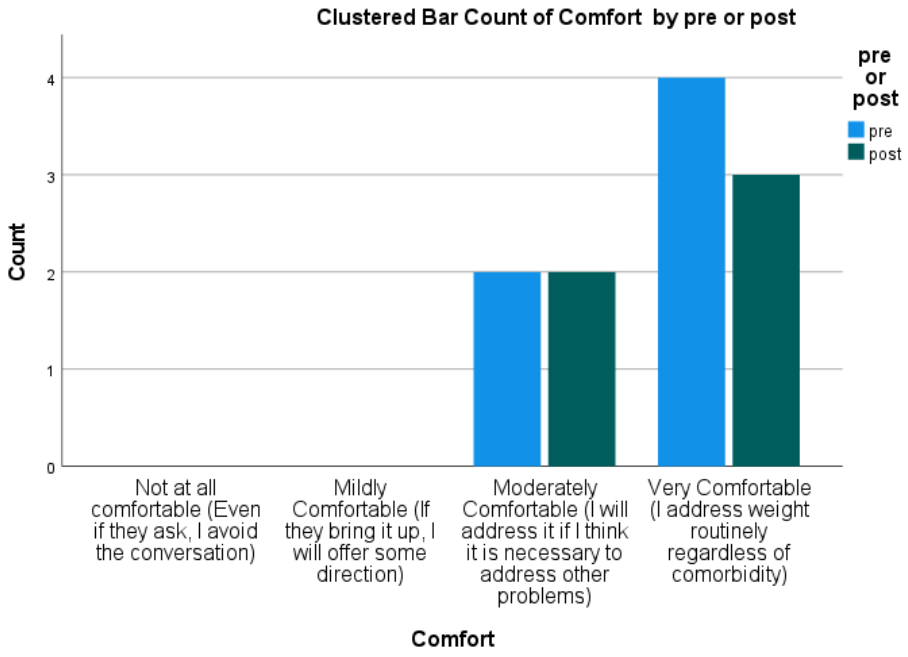


Table 1

Mean of Scores for Comfort

Report

Comfort

pre or post	Mean	N	Std. Deviation
pre	3.67	6	.516
post	3.60	5	.548
Total	3.64	11	.505

Figure 2

Comparison for Effectiveness Addressing Weight

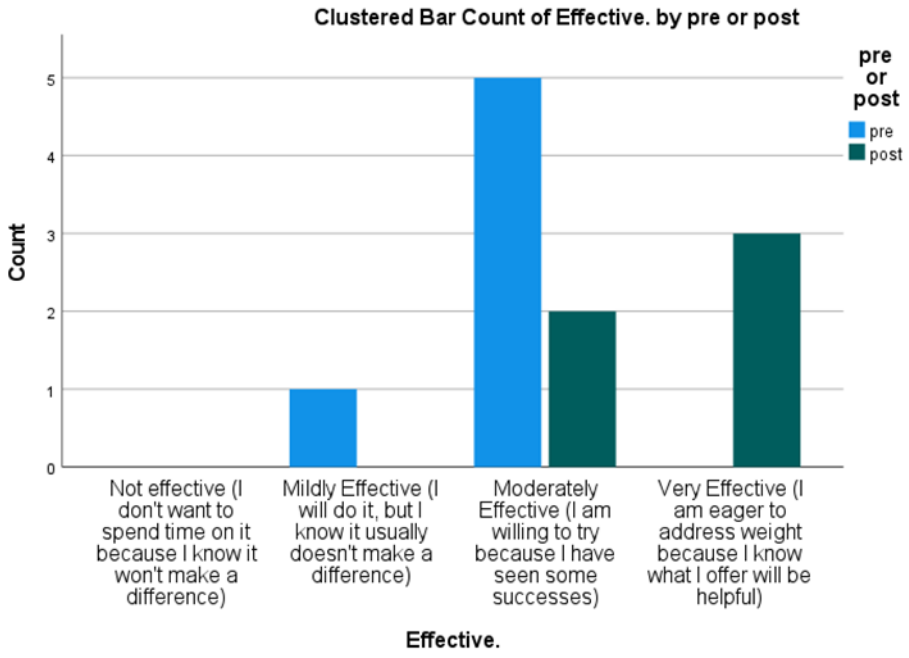


Table 2

Mean of Scores for Effective

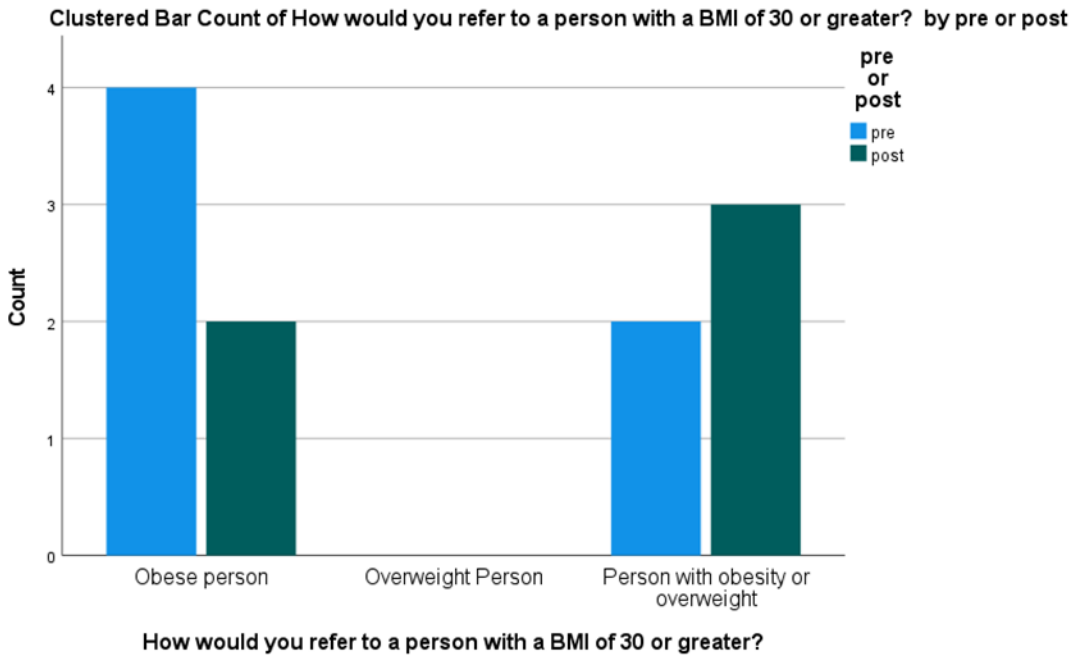
Report

Effective.

pre or post	Mean	N	Std. Deviation
pre	1.83	6	.408
post	2.60	5	.548
Total	2.18	11	.603

Figure 3

Recognition of Person-First Language



Project Limitations

Limitations encountered by the researcher affected both the scope of the material provided to participants and the sample size. Initially the project proposal included implementation of a SmartSet within the electronic medical record system Epic that

would allow the provider to insert the documentation, coding, patient instructions, and request follow-up from one page. However, after approximately nine months of requesting either build permissions or for an implementation team to build this SmartSet, the researcher was notified that individual providers were not given permission to create their own SmartSets. It would need to be requested by the Physician Team Leader to be used across the system. The providers were able to use SmartPhrases which are abbreviations or words that can insert commonly used text into patient notes in Epic for the documentation template and patient instructions created by the researcher. However, it required that they memorize the needed phrase, which presented a barrier to utilization. Small sample size was also a barrier. The project implementation coincided with an unexpected corporate competency requirement for every provider requiring several hours of similar participation requirements, such as educational videos and questionnaires.

Implications and Recommendations

Since screening and counseling by primary care providers is the only source of treatment for obesity that is universally covered by private and public insurers (Waidmann et al, 2022), primary care providers must feel comfortable and effective in providing weight management counseling. As stated in The Essentials: Core Competencies of Professional Nursing Education, the domain of person-centered care, and the concepts of compassion, diversity, equity, and inclusion are competencies that must be delivered in nursing education to meet the current and future needs of health care. However, patient-centered care and obesity treatment are relatively new topics for training that more experienced providers might not have encountered. Teaching the concepts of Motivational Interviewing for primary care providers to counsel patients with

obesity will address both priorities. In future research, the project could be presented to the Physician Leader Group for adoption across the system which would allow creation of a SmartSet to lessen the burden of the provider in utilizing the resources. The educational video, documentation guide, and patient instructions could be presented to providers outside of the researcher's employer group to achieve a larger sample. On a policy level, to adequately address obesity in Mississippi through primary care providers, access to care must also be addressed. Mississippi is a Health Care Professional Shortage Area according to the Health Resources and Services Administration, with the lowest physician to patient ratio in the nation (Petterson et al., 2013). Mississippi is considered by the American Academy of Nurse Practitioners as a Reduced Practice state in that nurse practitioners are required to have a collaborative agreement with another health provider to practice (AANP 2021). Removing this restriction would allow nurse practitioners to fill the increasing need for primary care in shortage areas.

Budget/Cost

The costs incurred in the completion of this project were nominal as most of the information was provided in electronic form, utilizing free software or applications, and no travel was required. The cost of the researcher's time was not calculated as obesity counseling is part of her current practice. The research was conducted for academic purposes, therefore neither the researcher nor participants were reimbursed for time.

Conclusion

This quality improvement project aimed to improve primary care providers' perception of comfort and effectiveness in weight management counseling through an educational video about motivational interviewing, and through providing documentation

and patient instruction templates in the electronic medical record. Electronic surveys were administered prior to the intervention and sixty days after implementation and showed an improvement in provider perception of effectiveness. They also showed improvement in responses related to patient-centered care. The responses indicated that the participants found the educational video and electronic resources helpful to their practice. Considering these results, it is concluded that education for primary care providers regarding motivational interviewing for weight management counseling should continue across the state to improve the quality of care provided to patients with obesity.

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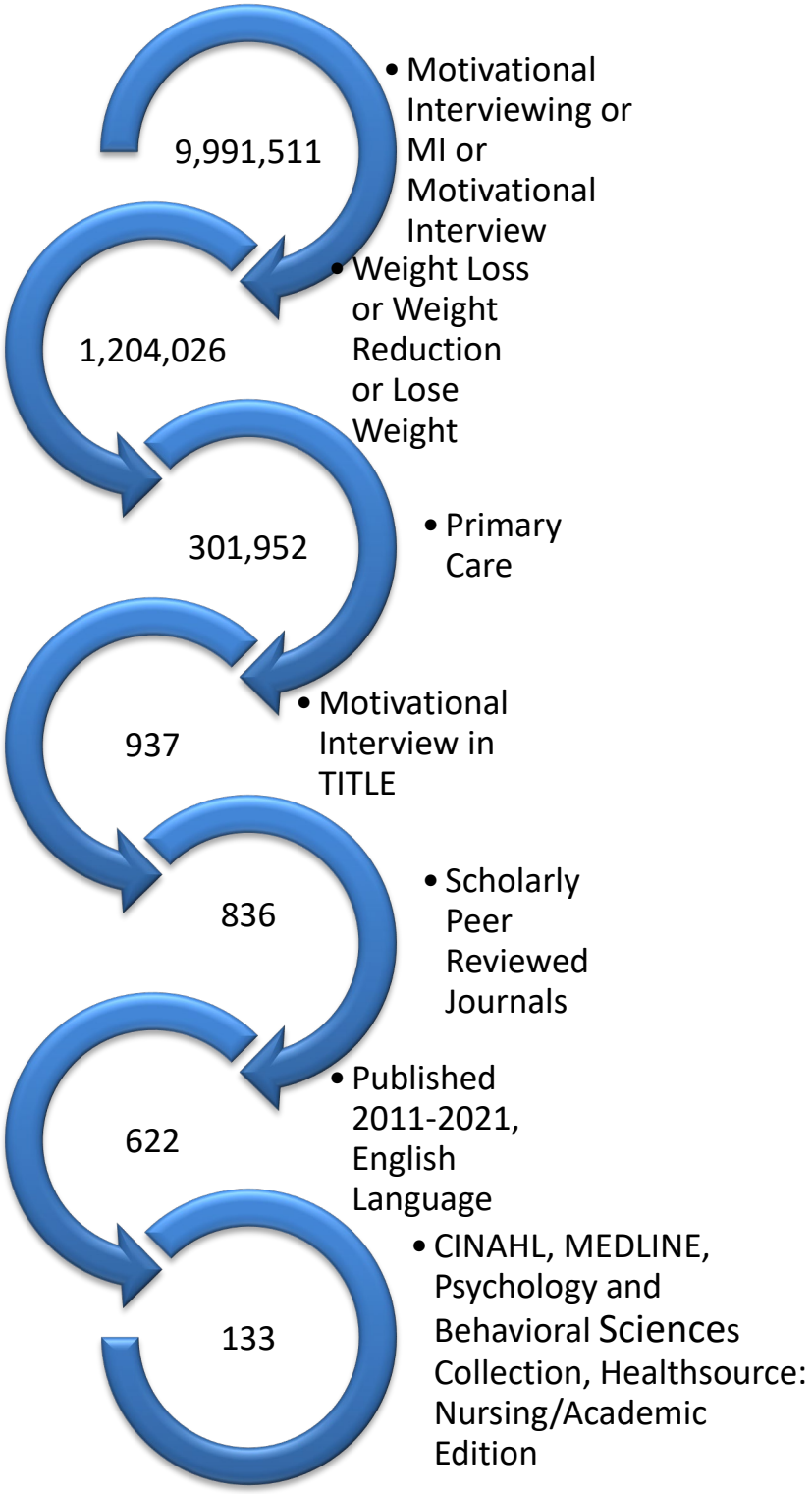
Appendix A

Literature Search Strategy Map



Appendix B

Mississippi University for Women IRB Approval

To: Heather Kuriger and Dr. Teresa Hamill

From: Irene Pintado, IRB Chair I.P

Date: 05/10/2022

Project: Improvement of weight reduction counseling in primary care

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The Mississippi University for Women IRB committee has determined that your project, Improvement of weight reduction counseling in primary care, is exempt under 45 CFR 46.101 (b)(4). This project is a quality assurance project.

If any changes are made to the study, the Committee must be notified. If the project is still running twelve months after the date of this memo, please be advised that we will need an update for our files.

Good luck with your work!

Appendix C

FMOLHS IRB Approval

Kuriger, Heather

From: LeBoeuf, Christine H
Sent: Tuesday, August 2, 2022 8:07 AM
To: Kuriger, Heather
Cc: Royce, Tova H
Subject: RE: DNP Project

Good morning Heather,

Apologies for the delayed response and thank you for your submission. As the project has been deemed QI by the IRB, it does not need to be submitted to the Office of Research for review.
The only feedback I have is although the project was identified as being QI, there were multiple references to the participant participating in research. Moving forward, it may be beneficial to stick with one term when referencing your project.

Good luck and please let me know if additional feedback is required.

Best,
Christine LeBoeuf, DNP, CCRC, CHRC | Sr. Director Research and Grants
Office of Research and Grant Administration
Franciscan Missionaries of Our Lady Health System
7556 Hennessy Blvd | Baton Rouge, LA 70808
(w) 225-765-5956 | (f) 225-765-0962 |(cell) 225-802-7862
christine.leboeuf@fmolhs.org

From: Kuriger, Heather <Heather.Kuriger@fmolhs.org>
Sent: Saturday, July 30, 2022 11:51 AM
To: LeBoeuf, Christine H <Christine.Leboeuf@fmolhs.org>
Subject: DNP Project

Good Morning!

I am in the process of obtaining my DNP at Mississippi University for Women and will be implementing a research project this fall. With FMOLHS approval, I will be offering participation to primary care providers in the SDMA and MEA Primary Care clinics. The participants are providers only. No patient information will be collected. It is a Quality Improvement project, and not an experimental study. The IRB application to Mississippi University for Women has been approved, and I have attached the IRB application and the waiver. Thank you and I look forward to hearing from you.

Heather Kuriger CFNP
St. Dominic Family Medicine
1297 West Government Street
Brandon MS 39042
(601)200-4970
Fax (601)200-4855

Appendix D

Questionnaire 1

Start of Block: Default Question Block

Q1 **Informed consent**: Investigator: "My name is Heather Kuriger, and I am a graduate student at Mississippi University for Women. I am inviting you to participate in a research study. Involvement in the study is voluntary, so you may choose to participate or not. I am now going to explain the study to you. Please feel free to ask any questions that you may have about the research; I will be happy to explain anything in greater detail. I am interested in learning more about weight reduction counseling in primary care environments. You will be asked to take a survey about your experience with weight reduction counseling in your practice. This will take about 5 minutes. You will watch a video about weight reduction counseling. This will take approximately 20 minutes of your time. You will utilize the electronic template and the techniques mentioned in the video in the course of your regular practice for the next 60 days. You will take another survey at the end of those 60 days that will take about 5 minutes. All information will be kept anonymous and confidential. By using an electronic survey platform, data collection does not allow responses to be connected with a particular subject. I will know the email addresses of participants, but I will not know your specific answers. I will ask for nonidentifying details to be able to match your answers in from the first survey to the second survey. In any articles I write or any presentations that I make, I will not reveal details or I will change details about where you work, where you live, any personal information about you, and so forth. The benefit of this research is that you will be helping us to understand obesity management in primary care. This information should help us to address obesity with our patients more frequently, more effectively, and with a patient centered approach. If you do not wish to continue, you have the right to withdraw from the study, without penalty, at any time. Participant – By continuing to complete this survey, I agree that all of my questions and concerns about this study have been addressed. I choose, voluntarily, to participate in this research project.

Q4 How comfortable do you feel when addressing weight reduction with primary care patients? 0 is not at all comfortable and 10 is extremely comfortable.

- ○ Not at all comfortable (Even if they ask, I avoid the conversation) (0)
- ○ Mildly Comfortable (If they bring it up, I will offer some direction) (2)
- ○ Moderately Comfortable (I will address it if I think it is necessary to address other problems) (3)
- ○ Very Comfortable (I address weight routinely regardless of comorbidity) (4)

Q5 How effective do you feel your efforts in weight reduction counseling to be? 0 is not at all effective and 10 is extremely effective.

- ○ Not effective (I don't want to spend time on it because I know it won't make a difference) (0)
- ○ Mildly Effective (I will do it, but I know it usually doesn't make a difference) (1)
- ○ Moderately Effective (I am willing to try because I have seen some successes) (2)
- ○ Very Effective (I am eager to address weight because I know what I offer will be helpful) (3)

Q6 Do you usually ask the patient's permission before addressing weight reduction?

- ○ Never (1)
- ○ Sometimes (2)
- ○ Usually (4)
- ○ Always (5)

Q7 6. True or False: In order for someone to lose weight, they must follow specific calorie limits or restrict certain food groups.

- [ ] True (1)
- [ ] False (2)

Q8 7. True or False: It is necessary for patients to exercise to lose weight.

- ○ True (0)
- ○ False (1)

Q9 How would you refer to a person with a BMI of 30 or greater?

- [ ] Obese person (1)
- [ ] Overweight person (2)
- [ ] Person with obesity or overweight (3)

Q10 What is your profession?

- ○ Physician (1)
- ○ Advanced Practice Provider (Nurse Practitioner or Physician's Assistant) (2)

Q11 How many years have you practiced in primary care?

- ○ 0-2 years (1)
- ○ 3-5 years (2)
- ○ 5-10 years (3)
- ○ 10 years or more (4)

Q20 The following questions allow the researcher to match pre and post test responses, while maintaining participants' anonymity.

Q21 What is the LAST letter of your first name.

_____

Q22 What is the LAST letter of your last name

_____

Q23 What year did you graduate high school.

_____

End of Block: Default Question Block

Appendix E

Questionnaire 2

Start of Block: Default Question Block

Q1 **Informed consent**: Investigator: “My name is Heather Kuriger, and I am a graduate student at Mississippi University for Women. I am inviting you to participate in a research study. Involvement in the study is voluntary, so you may choose to participate or not. I am now going to explain the study to you. Please feel free to ask any questions that you may have about the research; I will be happy to explain anything in greater detail. I am interested in learning more about weight reduction counseling in primary care environments. You will be asked to take a survey about your experience with weight reduction counseling in your practice. This will take about 5 minutes. You will watch a video about weight reduction counseling. This will take approximately 20 minutes of your time. You will utilize the electronic template and the techniques mentioned in the video in the course of your regular practice for the next 60 days. You will take another survey at the end of those 60 days that will take about 5 minutes. All information will be kept anonymous and confidential. By using an electronic survey platform, data collection does not allow responses to be connected with a particular subject. I will know the email addresses of participants, but I will not know your specific answers. I will ask for nonidentifying details to be able to match your answers in from the first survey to the second survey. In any articles I write or any presentations that I make, I will not reveal details or I will change details about where you work, where you live, any personal information about you, and so forth. The benefit of this research is that you will be helping us to understand obesity management in primary care. This information should help us to address obesity with our patients more frequently, more effectively, and with a patient centered approach. If you do not wish to continue, you have the right to withdraw from the study, without penalty, at any time. Participant – By continuing to complete this survey, I agree that all of my questions and concerns about this study have been addressed. I choose, voluntarily, to participate in this research project.

Q4 After viewing the Motivational Interviewing video, how comfortable do you feel when addressing weight reduction with primary care patients? 0 is not at all comfortable and 10 is extremely comfortable.

- ○ Not at all comfortable (Even if they ask, I avoid the conversation) (0)
- ○ Mildly Comfortable (If they bring it up, I will offer some direction) (2)
- ○ Moderately Comfortable (I will address it if I think it is necessary to address other problems) (3)
- ○ Very Comfortable (I address weight routinely regardless of comorbidity) (4)

Q5 After viewing the Motivational Interviewing video, how effective do you feel your efforts in weight reduction counseling to be? 0 is not at all effective and 10 is extremely effective.

- ○ Not effective (I don't want to spend time on it because I know it won't make a difference) (0)
- ○ Mildly Effective (I will do it, but I know it usually doesn't make a difference) (1)
- ○ Moderately Effective (I am willing to try because I have seen some successes) (2)
- ○ Very Effective (I am eager to address weight because I know what I offer will be helpful) (3)

Q6 After viewing the Motivational Interviewing video, do you usually ask the patient's permission before addressing weight reduction?

- ○ Never (1)
- ○ Sometimes (2)
- ○ Usually (4)
- ○ Always (5)

Q7 6. True or False: In order for someone to lose weight, they must follow specific calorie limits or restrict certain food groups.

- [ ] True (1)
- [ ] False (2)

Q8 7. True or False: It is necessary for patients to exercise to lose weight.

- ○ True (0)
- ○ False (1)

Q9 How would you refer to a person with a BMI of 30 or greater?

- [ ] Obese person (1)
- [ ] Overweight person (2)
- [ ] Person with obesity or overweight (3)

Q10 Did you find the teaching video to be applicable and useful to your practice?

- ○ Yes (1)
- ○ No (2)

Q11 Did you find the HPI template or patient instructions for Weight Reduction to be useful?

- ○ I did find it useful (1)
- ○ I did not find it useful (2)
- ○ I didn't try to use it (3)

Q20 The following questions allow the researcher to match pre and post test responses, while maintaining participants' anonymity.

Q21 What is the LAST letter of your first name.

_____

Q22 What is the LAST letter of your last name

_____

Q23 What year did you graduate high school.

_____

End of Block: Default Question Block