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# The Implementation of Obesity Guidelines in a Rural Clinic

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THE IMPLEMENTATION OF OBESITY GUIDELINES IN A RURAL CLINIC

by

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APPROVED BY DNP PROJECT ADVISOR / CLINICAL MENTOR:

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Teresa M. Beard

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## Abstract

**Background.** Over 36% of Americans are obese. It is estimated that, by year 2030, 51% of the population will be obese. With the increased prevalence of co-morbidities associated with obesity, it is important to gain control of this disease. **Method.** The aim of this project was to implement the 2013 American College of Cardiology, American Heart Association Task Force on Practice Guidelines, and the Obesity Society Guidelines for the Management of Overweight and Obesity in Adults in order to identify those patients who require treatment for obesity and provide them with appropriate resources. The primary interventions are to provide color-coded cards to help identify patients with obesity, provide a behavior-monitoring calendar to patients with obesity, and provide referrals to appropriate patients. The number of referrals made and the documentation of obesity treatment were monitored during weekly chart reviews to evaluate effectiveness. **Results.** Throughout the implementation period, all three healthcare providers in the clinic increased the frequency of documentation of obesity interventions and a total of three referrals were made. This demonstrates the implementation of the obesity guidelines was appropriate and increased the healthcare providers' awareness of obese patients and their unique healthcare needs. **Implications for Practice.** Due to obesity being such an ubiquitous disease, it is imperative that primary care clinics develop a strategy to combat this chronic illness. The onus falls on the primary care providers to educate patients, manage and treat the disease, and evaluate effectiveness, making it essential that all clinics have a strategy to identify obesity and an approach to treat it.



With its vast array of accompanying illnesses, obesity has become a burden on the American healthcare system. These co-morbidities can include cardiovascular disease, diabetes, and cancer, just to name a few. While healthcare tries increasingly hard to reduce the prevalence of overweight and obesity in all patient populations, it remains a major concern, both for the health of patients and the United States healthcare system. It has become imperative that healthcare providers are well-versed on appropriate treatment modalities for patients who are obese, and can understand when a patient requires more specialized attention, such as a referral to a dietician, nutritionist, behavioral health specialist, or bariatric surgeon. The U.S. Preventive Services Task Force (2012) has a Grade B recommendation for all adults to be screened for obesity. Healthy People 2020, a government initiative to identify nationwide health improvement priorities and increase public awareness, set a goal to increase the number of primary care visits, with documented obesity education, provided to those with a BMI greater than or equal to 30 kg/m<sup>2</sup> (Office of Disease Prevention and Health Promotion, 2017). The target is to “increase the proportion of physician office visits made by adult patients who are obese that include counseling or education related to weight reduction, nutrition, or physical activity” to 31.8% , an increase from 28.9% in 2007 (Office of Disease Prevention and Health Promotion, 2017).

A study by Finkelstein et al. (2012) showed that by the year 2030, 51% of the general population will be obese; approximately 9% will be severely obese. The prevalence of obesity is growing, and the prevalence of co-morbidities and rising healthcare costs is greatest in the obese population (Dee et al., 2014). The co-morbidities mentioned above—cardiovascular disease, diabetes, cancer—also contribute to the rising cost of healthcare, both in dollars and in productivity (Dee et al., 2014). It is estimated that obesity and obesity-related illnesses have an

annual impact of \$2 trillion globally (Jordan & Harmon, 2015). In the United States alone, researchers have projected that, by the year 2018, healthcare costs related to obesity will reach \$344 billion and, by the year 2030, will account for approximately 16-18% of the annual healthcare costs by (Jordan & Harmon, 2015).

While there are outside contributing factors to obesity, maintaining a healthy lifestyle is paramount, making the promotion of and education on appropriate and necessary lifestyle changes invaluable (Jordan & Harmon, 2015). Compliance and adherence by the providers to guidelines, and the patient's compliance and adherence to the lifestyle changes necessary, are documented as problems and are, perhaps, the biggest governable factors that affect obesity. Therefore, the importance of providing and documenting education by the primary care provider is paramount.

### **Statement of the Problem**

Obesity continues to contribute to numerous co-morbidities, increase the risk of death, and exponentially increase the cost of healthcare, while patients do not adhere to necessary lifestyle changes and do not have access to appropriate resources to aid in personalizing a weight loss plan that will be successful and beneficial. Dee et al. (2014) describe direct and indirect healthcare costs related to obesity. Direct costs are calculated by totaling expenditures related to in- or out-patient visits and pharmaceutical costs. Obesity can also aggrandize healthcare costs in the form of time and productivity, referred to as indirect costs. While difficult to compute, it is possible to monetize indirect costs such as the amount of time and efficiency lost due to a lack of physical ability or stamina, absenteeism, presenteeism (a loss of productivity in the workplace despite being present), early retirement, or premature death. These additional costs are believed to be more extensive than the direct healthcare costs associated with obesity; however, as BMI

increases, so does the cost of healthcare. Similarly, other diseases contribute to the overall state of the country's health.

In order to mitigate this well-documented obesity problem in America, an active lifestyle with an appropriate diet remains a change that must be made by the patient in order to successfully achieve a healthy weight (Hood et al., 2016). This lifestyle is comprised of a well-balanced diet with portion control, increased water intake, regular exercise, and routine follow-up with the primary care provider to monitor weight loss progress (Hood et al., 2016). It has been well-documented in the literature that a decrease in sugar-sweetened beverages, combined with an increase in water intake, is beneficial and can aid in weight loss (Pan et al., 2018). Treatment can also include referrals to appropriate specialists, including nutritionists, dietitians, behavioral health specialists, and bariatric surgeons. The American College of Cardiology (ACC), American Heart Association Task Force on Practice Guidelines (AHA), and The Obesity Society (TOS) have published specific guidelines on when and how to aid patients in weight loss and when a referral to outside entities are necessary. However, these guidelines are not always strictly adhered to, due to a lack of understanding and the multiple options available for defining and treating obesity. This is a two-fold problem prevalent throughout the entire primary care setting, attributed to the inconsistencies in diagnostic criteria currently being utilized and the various guidelines available for treatment (Ritten & LaManna, 2017).

Diagnosis is one problem factor. There is a multitude of disease-staging systems used to score obesity in different stages. Ritten and LaManna (2017) describe the multiple methods for determining obesity, including body mass index (BMI), hip, neck, and waist circumference, and adiposity; in some situations, these may be used in tandem with other variables. The Cardiometabolic Disease Staging System, the Edmonton Obesity Staging System, and King's

Obesity Staging System are three examples of the options available to determine if a patient is obese, each one determining obesity in a different way. The Food and Drug Administration Classification of Obesity, which will be used for the purpose of this project, uses the patient's BMI to determine obesity (see Table 1) (Ritten & LaManna, 2017).

Table 1

*Definitions of Obesity*

Class	BMI (kg/m <sup>2</sup> )
Overweight	25<30
Class I Obesity	30<35
Class II Obesity	35<40
Class III Obesity	≥ 40

The second factor contributing to the lack of obesity treatment in the primary care setting is the plethora of algorithms and treatment suggestions available to choose from. The American Association of Clinical Endocrinologists (AACE) and the American College of Endocrinology (ACE) Clinical Guidelines for the Management of Obesity both offer evidence-based treatment guidelines for obesity. While the goals of weight loss and resolution of co-morbidities are commonalities amongst the different guidelines, the recommendations of each guideline vary slightly (Ritten & LaManna, 2017). Furthermore, weight loss goals can be different, depending upon the presence of specific co-morbidities. For example, the American Diabetes Association offers specific treatment for obese patients with type-2 diabetes mellitus; the AACE, TOS, and the American Society for Metabolic and Bariatric Surgery (ASMBS) offer lifestyle guidelines for those patients in the perioperative stages of bariatric surgery (Ritten & LaManna, 2017). With a plethora of definitions and treatment guidelines to choose from, PCPs can become confused or overwhelmed by the number of options available. This leads to inaction by the provider. Knowing this promulgates the understanding that a single definition of obesity and a single

guideline must be chosen by the clinic for the diagnosing and treatment of this chronic disease based on the population being treated and the educational needs of the clinic.

### **Assessment**

While performing an assessment of a local, rural, underserved, primary care clinic on the southeast side of San Antonio, it became apparent that a large percentage of the clientele is obese. During the month of data collection, of the 468 people seen, 306 patients, or 65%, had a BMI greater than 30 kg/m<sup>2</sup>. Of those patients, 49% had documented insurance. It was disclosed by a primary care provider at the clinic that the appropriate application of obesity treatment guidelines was not well understood and therefore not being implemented. A survey was done of the staff at the clinic, in which the staff indicated not only was an intervention needed, but that the staff were willing to participate in the change. It was decided that the best way to help this patient population was to educate the primary care providers on the FDA's Definition of Obesity (see Table 1) and the ACC/AHA/TOS 2013 Guidelines for the Management of Overweight and Obesity in Adults.

During this survey, staff also indicated that referrals were infrequently made at the clinic, due to a perceived lack of insurance coverage. A 4-week review of patient charts was done on all appointments at the clinic between October 10, 2017 and November 9, 2017, excluding pediatric and obstetrical visits, to perform a cross-sectional review of the manner in which appointments were paid for. Thirty-two percent of patients seen during this timeframe utilized the sliding scale payment option, paying a co-pay based on income due to a lack of insurance.

Approximately 8% were self-pay patients, paying out of pocket, either because it was less expensive than the copay required by their insurance, or the uninsured patient earned too much money to qualify for the sliding scale. Twelve percent had Carelink, a healthcare-related payment program offered through the University Health System to those without insurance.

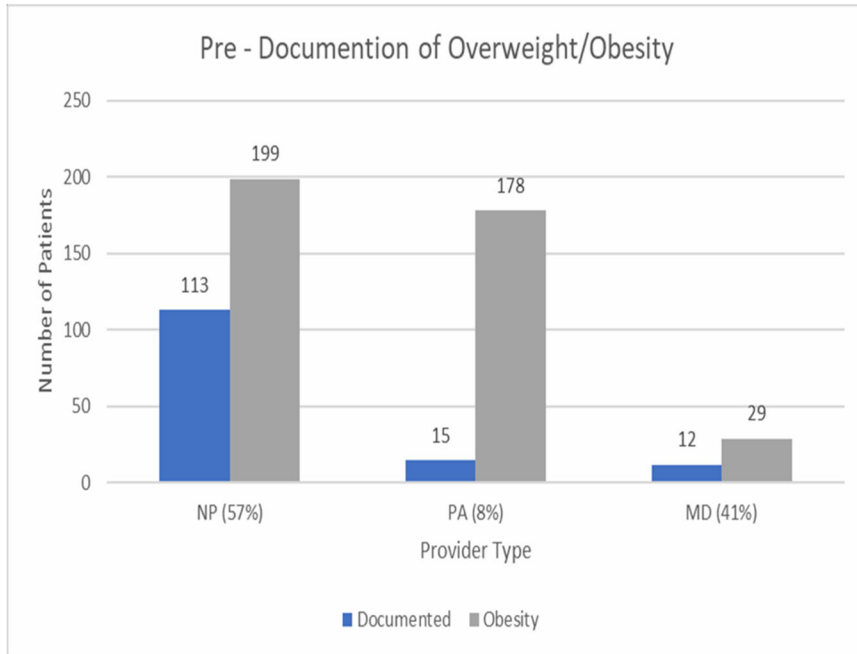
Finally, 53% of the patients had private insurance. 65% of the patients seen within this 4-week period had possible access to appropriate obesity-related education and referrals that could have potentially changed and saved their lives. Unfortunately, not all patients received the necessary referrals or education.

At the clinic, there are three providers: a physician who attends clinic once a week; and a nurse practitioner (NP) and a physician assistant, who both attend clinic 5 days per week. There are two medical assistants and two licensed vocational nurses. The clinic manager at the time of the assessment had a social work background.

While every patient is weighed, measured for height, and a BMI determined, the information obtained is seldom addressed. Whether due to providers' lack of time, lack of knowledge, or forgetfulness, patients with obesity were not always being offered education on their disease condition in order to aid them in developing healthier habits and lifestyle. During the 4-week chart review, it was determined that obesity was documented in 93% of the NPs' patients; 83% of the patients seen by the physician assistant were considered obese. Of these patients, the BMI was only addressed with 8% of the patients. Ninety-seven percent of the patients seen by the physician were considered obese, and it was addressed with 43% of them (see Figure 1).

During the staff survey, only one of 11 was not returned. Of those returned, 100% of staff agreed that the clinic has a high population of obese patients. Fifty percent of the staff answered "no" to the question "Do you feel obesity is addressed often enough in appointments?" However, only 10% of the staff surveyed answered "yes" when asked if the clinic provides enough education to obese patients. Finally, all staff who completed and returned the survey agreed to actively participate in the implementation of an intervention to improve the status of obese

patients being seen at this clinic.



*Figure 1.* Documentation of obesity education prior to intervention.

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Of the providers of the clinic who were assessed, the physician and nurse practitioner were, at the time, extremely interested in changing the way obesity was managed, while one provider would not respond to the question. According to the nurse practitioner, the biggest hindrance to a clinic patient receiving the necessary treatment for obesity is the perceived lack of

funding and/or insurance, leading to a lack of appropriate referrals. While some education was sporadically provided using the discharge function of the charting system, the provider did mention that obesity was “terribly under-addressed” within the clinic. This provider also does not prescribe appetite suppressants due to the increased risk of cardiovascular complications; however, referrals have been made to outside entities, but only if the patient has explicitly asked or expressed an interest in them.

Of all the obese patients seen in the clinic during this appointment review, only one patient received a documented referral to bariatric surgery; one patient was already in the perioperative stages of bariatric surgery and awaiting a surgical date. The lack of proper education being provided, combined with a lack of referrals to specialists, has contributed to the large number of obese patients in this clinic. It was also discovered that there is a knowledge gap amongst the providers regarding when it is appropriate to make referrals versus when to medically manage patients in the primary care setting.

### **Project Identification**

The primary purpose of this project is to improve the treatment provided to patients with obesity and to improve overall health outcomes for these patients. To do this, the project consists of three concepts: implementation of the 2013 Guidelines for the Management of Overweight and Obesity in Adults as set forth by the ACC/AHA/TOS, as evidenced by increased documentation of appropriate interventions; an increase in the number of referrals made to specialists; and an increase in the documentation of height, weight, and BMI of every patient on every visit. There are three major objectives for this project: to provide referrals to specialty care for appropriate patients, including bariatric surgery if the patient qualifies; to assist and encourage all obese patients in weight loss by providing them with a calendar designed to



monitor daily eating habits, water intake, and physical activity; and to implement the 2013 Guidelines for the Management of Overweight and Obesity in Adults as set forth by the ACC/AHA/TOS, as evidenced by increased documentation of all interventions and education provided. All obese patients with a BMI greater than 30 kg/m<sup>2</sup> will receive education on how to use the calendar and how it is designed to be utilized. It is expected that those patients receiving a referral will return to the clinic having lost weight or with a plan to do so. It is also expected that those who receive the calendar will return to the clinic for monthly follow-ups with the completed calendar. This will allow the provider to evaluate the patients' daily behaviors as they relate to a healthy lifestyle and to then provide recommendations on areas for improvement.

### **Summary of Evidence**

The current literature regarding the adherence to lifestyle changes in obese patients suggests addressing behavioral health, increasing patient contact with clinical staff, and assessing patients' progress and adherence using patient-monitored indicators such as weight and diet. (Hood, 2016). The 70-page guideline published by the AHA/ACC/TOS outlines evidence-based recommendations for obese patients on an appropriate diet, adequate water intake, and physical fitness recommendations.

The 2013 AHA/ACC/TOS Guidelines for the Management of Overweight and Obesity in Adults recommends that a patient's diet should be made up of 15-25% of protein in a calorie-restricted diet (Jensen et al., 2013). The guideline also recommends those patients striving to lose weight should include at least 150 minutes per week of aerobic physical activity (Jensen et al., 2013). While water intake is not specifically mentioned in the guideline used, it is well documented in the literature that a decrease in sugar-sweetened beverages, combined with an increase in water intake, is beneficial and can aid in weight loss (Pan et al, 2018). Duffey and

Poti (2016) echo this information by explaining that a tactic that can be employed to lose weight is decreasing calorie consumption in the form of sugar-sweetened beverages and replacing them with water. Finally, in a systematic review done by Muckelbauer, Sarganas, Gruneis, and Muller-Nordhorn (2013), it was reiterated that there is a positive correlation between an increase in water intake and weight loss.

Another important finding in the literature is that guidelines have become an integral portion of the identification and management process for any disease. They simplify the process by creating an easy-to-follow algorithm, typically outlining the next step clearly and with an explanation. However, guidelines are not always adhered to by PCPs. This could be due to a lack of time, forgetting, or a lack of knowledge regarding which guidelines to follow and when to implement them. Ritten and LaManna (2017) discuss this in depth, stating that three things contribute to complicating care: derisory provider education, complications with reimbursement, and resources that are not appropriately prescribed or recommended. Sean J. Iwamoto, MD, and colleagues conducted a study and presented the findings at Obesity Week 2017 in Washington D.C. Using data analyzed from a survey found in the Patient Outcomes Research to Advance Learning, the researchers discovered less than 50% of obese patients received any education regarding weight loss from their primary care provider (Cox, 2017). This is a significant omission on the part of the provider.

In another study done by Costa et al. (2016), it was determined that in young adults aged 20-59, there is a significant lack of self-care awareness and behavior in those with Type 2 Diabetes Mellitus, a significant chronic disease comparable to obesity. Without a clear understanding of chronic illnesses by the patients, mortality will continue to increase and the cost of healthcare related to chronic illnesses will continue to climb. The onus of responsibility then

falls to the primary care provider to deliver appropriate education, and reminders for the patients to self-monitor their chronic conditions at home, including obesity. It is also important that the providers acknowledge when the patient's condition may be too complicated or severe for a primary care provider to manage alone, and to then make appropriate referrals with the patient's best interests in mind.

It should also be noted that the obese patient must be an active participant in their healthcare and must take responsibility for their actions and state of health. A way for providers to encourage this responsibility is a self-monitoring log for patients with obesity to track their daily behaviors, similar to a log for blood pressure or blood sugar. Or and Tao (2015) state that the use of technology in self-monitoring behaviors is no more effective than traditional methods. Or and Tao (2015) developed and implemented a "tablet-based self-monitoring system" for blood sugar and blood pressure (p. 81). While they discovered a decrease in blood pressure in the intervention group, a correlation to compliance of the self-monitoring behavior was not observed. While self-monitoring logs are offered for blood sugars and blood pressures, the clinic lacks a self-monitoring log for obesity and lifestyle habits of the patient.

### **Project Intervention**

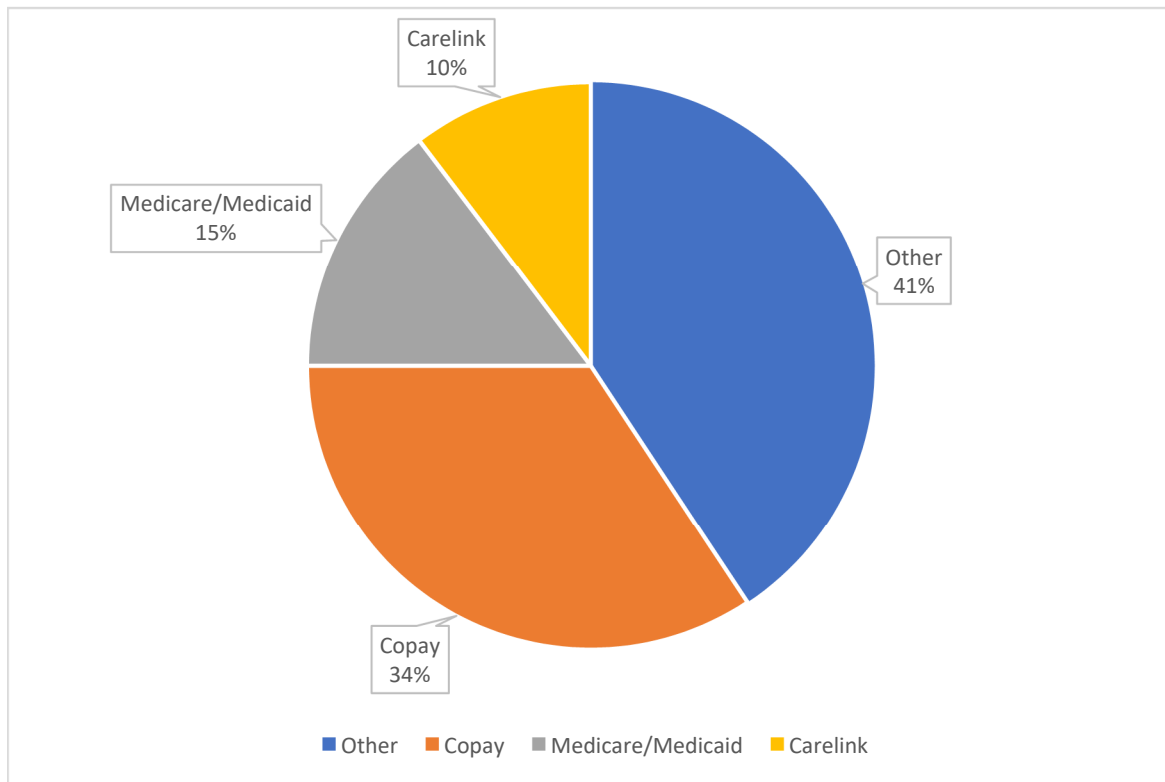
After considering the feedback from stakeholders and clinical staff, the initial project was restructured. While educating patients was part of the project, the main focus became the implementation of the 2013 AHA/ACC/TOS Guideline for the Management of Overweight and Obesity in Adults. The project was set at a small, rural, family practice clinic that provides care to the underserved on the south side of San Antonio, Texas (see Table 2). Those included in the study were all patients with a BMI greater than or equal to 30 kg/m<sup>2</sup>, were 18 years of age or older, and were not pregnant. Patients excluded from the project were those sent to the

emergency room via emergency medical services for incidental findings such as chest pain or an unsafe blood pressure. The percent of insurance held by obese patients can be seen in Figure 2.

Table 2

*Demographic Characteristics*

Characteristic	Total	%
Gender		
Male	209	39.7
Female	317	60.3
Race		
American Indian	3	0.5
Caucasian	452	86
African American	9	1.7
Hispanic	48	9.1
Asian	8	1.5
Multi-racial	4	0.8
Declined	2	0.4
Language		
English	422	80.2
Spanish	102	19.4
Other	2	0.4
Age		
18-29	40	7.6
30-39	65	12.4
40-49	121	23
50-59	149	28.3
60-64	67	12.7
65+	84	16
BMI		
< 30	196	37.2
30-39.9	235	44.7
≥40	90	17.1
No BMI	5	1



*Figure 2.* Insurance held by obese patients.

The first step to implementing this project was to appropriately educate all clinical staff involved. The medical assistants (MA) were educated on the importance of continuing to obtain a height, weight, and BMI from all patients. They were also trained on the use of colored-coded cards to help delineate the patients into groups according to BMI, in order to visually cue healthcare providers before entering the examination room as to the type of patient being seen. The healthcare providers received detailed education on the 2013 AHA/ACC/TOS Guidelines for the Management of Overweight and Obesity in Adults. A thorough explanation was provided to the healthcare providers regarding expectations of the outcomes and how the outcomes would be measured. All healthcare providers were expected to document education, treatment, and/or referrals made during the visit into the electronic medical record (EMR).

The screening of patients was to occur during triage, and was carried out by the MA. The patient's height, weight, and BMI were recorded in the EMR, per clinic routine. If the patient had a BMI of 29.9 kg/m<sup>2</sup> or less, a green card was placed on the chart, indicating to the healthcare provider that the patient did not have a BMI that needs to be addressed. If the patient had a BMI between 30.0 kg/m<sup>2</sup> and 39.9 kg/m<sup>2</sup>, a yellow card was placed on the chart to alert the healthcare provider to assess for risk factors prior to entering the examination room. If the BMI was greater than 40, a red card was placed on the chart to alert the healthcare provider that this patient automatically qualifies for a specialty care referral. In all cases, the MA documented the patient's type of insurance on the card, to assist the healthcare provider in creating a plan to make appropriate referrals or recommendations. The MAs were also asked to place a weight loss calendar with any yellow or red card for the healthcare provider to hand to the patient.

During the visit, the primary care provider (PCP) approached the patient about their BMI and current FDA Classification of Obesity and assessed the patients' readiness for change. The PCP then discussed potential complications of their BMI, discussed appropriate treatment options, and assessed receptiveness of the recommendations. The PCP was then responsible for documenting what was recommended, any referral given to the patient, and the patient's response. If the patient verbalized a readiness for change and weight loss, the provider then determined the next step. Regardless of other interventions implemented, a calendar was given to all obese patients and explained. The patient was advised to return in 1 month with the completed calendar for a follow-up visit so the provider could assess the patient's habits and reiterate any behaviors that should be modified. Any verbalized refusals of referrals or use of the calendar, or lack of readiness to change, was also documented by the PCP. Some changes made to the initial project proposed were based on staff feedback. The calendar was translated into

Spanish due to the large Spanish-speaking population. Another alteration made was the exclusion of those patients being seen for an acute episode, such as an illness or injury. Those acute patients were not weighed if a weight had been documented within the past 3 months.

### **Facilitators**

An initial facilitator noted in this clinic was the willingness of the MAs to participate in the screening portion of the project, as this is the first step in the process of project implementation. Two PCPs were initially motivated to make this change to aid the patients in leading a healthier lifestyle and improving overall health status. Other facilitators included the easy-to-use EMR and the willingness of staff to host the project coordinator.

### **Barriers**

Due to significant changes made in the clinic prior to the implementation phase of this project, the focus of the clinic changed; quality indicators became a secondary concentration in order to manage the economic status of the clinic. While the clinic remains focused on overall patient care, measurement of individual patient-related metrics was suspended as the clinic was in a financial crisis. Another barrier taken into consideration was the patients' resistance to treatment ideas after being approached by the primary care providers regarding their weight. As stated previously, patient lack of compliance is a hindrance to patient outcomes, and a lack of accountability on the part of the patient leads to a lack of participation in care. The lack of participation from two providers in the office was also identified as a barrier. One provider verbalized he would not be participating; the other passively demonstrated a disinterest in the project. The providers' outcomes were calculated separately in order to determine how effective the implementation of the guideline was when executed appropriately.

It is also important to take into consideration the shame or guilt a patient may feel when

questioned regarding physical and eating habits (Vallgård, 2016). These self-conscious emotions are often related to a person's inability to attain idealized social expectations (Solomon-Krakus & Sabiston, 2017). Patients are often aware of the implications of what they eat, even if they don't truly understand the physiology of the process. Asking a patient for a diet recall or about time spent exercising can create a sense of shame, leading the patient to potentially lie to the PCP.

### **Evaluation**

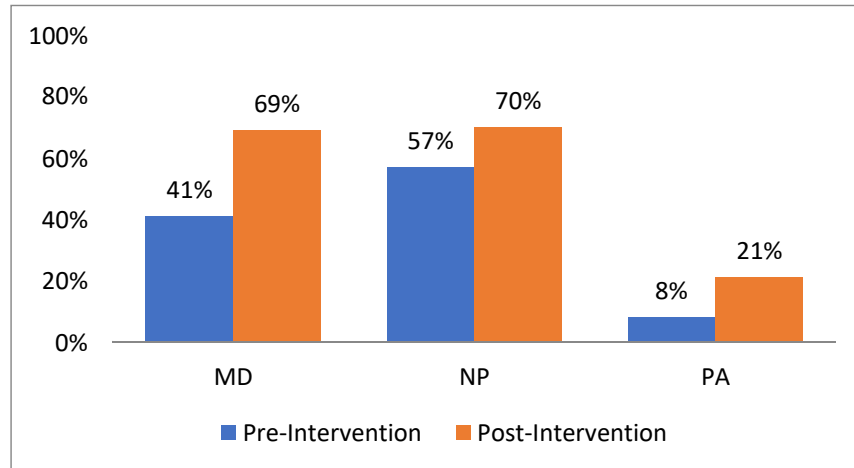
In order to determine the effectiveness of the guideline being implemented, three variables were measured: documentation of height, weight, and BMI by the MAs; documentation of obesity education by the providers; and number of referrals made and documented by the providers. Other metrics considered were the impact of the process on the clinic's daily routine and the number of calendars distributed by the providers; however, the data collected on these measures were inconsequential.

First, calculating the documentation by the MAs: of the 526 appointments reviewed, height, weight, and BMI was documented in 99.9% of those appointments. It was found during an interview with staff that the clinic lacks a wheelchair scale and this directly impacts their ability to weigh a wheelchair-bound patient. Unfortunately, there is no method of documenting this in the patient's EMR.

Second, in monitoring the documentation of obesity education provided by the PCPs, it was found that all providers improved their documentation (see Figure 3). Within this graph, it can be seen that, while not all providers met the 40% increase in documentation goal, all providers *did* improve the frequency in which obesity education was addressed. The physicians increased documentation by 69%, the nurse practitioner increased by 23%, and the physician



assistants increased by 163%.



*Figure 3.* Documentation improvement by provider. PA is physician assistant.

It should also be noted that there were three outside factors affecting the outcome of this particular metric. During the implementation of this guideline, two holidays occurred, reducing two 5-day weeks to 4-day weeks, and the nurse practitioner was on a 1-week vacation during the review (see Figure 4).

The next measurement is the number of referrals to bariatric specialists (behavioral health, dieticians, nutritionists, or bariatric surgeons) made by the providers for those obese patients for which the referral was appropriate. A 300% increase was found. During the assessment phase, only one referral was made. During the implementation phase, three referrals were made: to a wellness center, a bariatric surgeon, and a nutritionist. While this is a significant increase in percentage, it is not a significant increase in the number of referrals made.

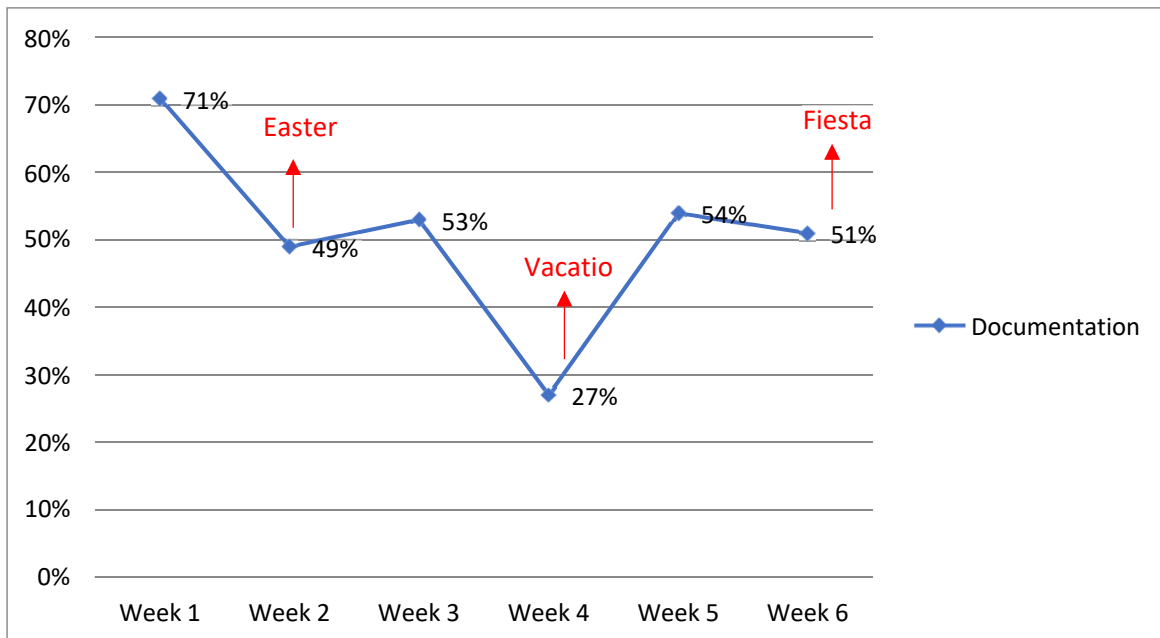


Figure 4. Overall percentage of provided obesity education by week.

### Recommendations

In order for this project to be more successful in the future, clinic climate must be taken into consideration. Due to this clinic experiencing a transition, the success of this project was severely limited. Secondly, more staff buy-in from the providers should be considered. Without the providers' participation, the process of implementing obesity guidelines cannot be successful. They are an integral part of the success, for both the change in procedure and for the patient. More education should be provided on the proper use of the calendar and its purpose. It should be made clear that, while meant to be used at home, the ultimate goal is for the provider to then assess the routines of the patient in order to guide them in the right direction towards living a healthy lifestyle and gaining control of their weight. Perhaps a designated educator or obesity expert could provide one-on-one education to those patients who desire the calendar.

### Implications

The impact of an Advanced Practice Registered Nurse (APRN), especially those holding

a Doctorate in Nursing Practice (DNP), can be monumental in the treatment of obesity. Due to the pending shortage of primary care physicians, the APRN role is poised to fill the void and can then play an immense role in the treatment of obesity (Gondran, 2017). The management of patients with obesity and the accompanying co-morbidities in the primary care setting is crucial to the health of each patient and of the country. It is important that APRNs recognize how influential they are in the fight against this disease. Gondran (2017) points out the use of motivational interviewing by the APRN that facilitates a positive, therapeutic relationship with the patient, increasing the potential for the relationship to be fruitful. As the American Association of Colleges of Nursing [AACN] (2006) outlines in their published manuscript addressing the DNP Essentials, it is made clear that the management of patients with obesity is a specialty for APRNs, and that the APRN should approach the task with vigor, taking into consideration communication and teamwork, and including the patient as a part of the healthcare team.

DNP Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking discusses the importance of eliminating health disparities amongst all populations, allowing for appropriate healthcare to be provided for all (AACN, 2006). This aids the APRN in setting goals for a specific patient population, such as the obese population, creating an environment that adjusts policies and procedures currently in place in order to better serve this vulnerable population. Another implication of this DNP essential includes focusing on the patient. Focusing on the disease rather than the patient can be easy, treating each individual disease without considering factors that may influence it. As APRNs, it is crucial that patient care comes first, and that the patient is viewed holistically and as part of the healthcare team.

This project highlighted the many teamwork relationships between the MAs, licensed

vocational nurses, the PCP, and the patient. Specifically, the relationship between the MA and the PCP elicited a symbiotic process in which the MA helped the provider recognize those patients needing further assistance. This also means including the patient as an essential team member of the healthcare team. DNP Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes speaks to the importance of working as a team (AACN, 2006). The current health status of a patient is not only the providers' problem; a patient must also be an active participant.

DNP Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health impresses upon APRNs the implications of obesity on a grander scale, aiding the APRN in identifying how significant a problem obesity is on multiple levels, including neighborhoods, cities, states, nations, and worldwide (AACN, 2006). Culture in a community, and developing specific interventions that can be successful within that community, are other important facets of this DNP essential. Appreciating culture and taking this into consideration, the DNP-prepared APRN can then enhance success within a specific population, decreasing overall obesity within a community.

Finally, DNP Essential VIII: Advanced Nursing Practice speaks to the enhanced ability of an APRN to implement evidence-based care, analyze the outcome, and adjust specific aspects of an intervention (AACN, 2006). This essential also helps APRNs realize the ability to specialize in care, honing precise skills in order to treat a specific population, such as patients with obesity. This also allows for APRNs to educate other healthcare professionals and aid them in identifying, managing, and treating patients with obesity.

The overall message of this quality improvement project and its findings speaks to how important it is for providers to address and treat obesity, how impactful that a change in process

can be within a clinic, and the ways in which APRNs have an influence on the entire process. For DNP-prepared APRNs to be distinguished from the role of a BSN- or MSN- prepared nurse, they must work to contribute to the implementation of evidence-based guidelines in order to improve the overall health of, not just a specific population, but the population of the world.

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