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Implementing the 5As Framework for Obesity Management

Jennifer C. Sassman
jcsassman@gmail.com

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Jennifer Cecil Sassman

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Joseph Burkard, DNSc, CRNA, Faculty Chairperson
Kathy James, DNSc, FNP, Seminar Faculty
Roger Oen, MD, MPH, Clinical Mentor
Natasha Hicks, MSN, FNP-C, Clinician

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Acknowledgements

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Last, but certainly not least, thank you to my dear husband, Trent, and the rest of my family for supporting me during this rigorous journey. These last few years have often been trying in many ways, and I could not have come so far without a mountain of positivity and encouragement all the way to the end.

I love being a nurse. This professional has been not only extremely challenging but also incredibly rewarding. During my years of providing care at the bedside, I always knew a time would come where I wanted to advance my career while also staying true to my nursing roots. Becoming a nurse practitioner was the obvious goal. By attending University San Diego's Doctor of Nursing Practice program, I chose to academically, professionally, and personally build on my foundation as a critical care nurse while transitioning into the clinical leader role of a Family and Adult Gerontology Nurse Practitioner.

Becoming a primary care Nurse Practitioner has afforded me the opportunity to work upstream in health care. Instead of trying to treat those who are extremely ill, as I had done as a critical care RN, I now have opportunities to keep people well and practice preventative medicine. The old saying an ounce of prevention is worth a pound of cure could be truer.

After much deliberation when deciding to apply to the Master's or Doctorate track at University of San Diego, I decided to apply for a spot in the Doctor of Nursing Practice program. I choose this academic path, as I knew I wanted to be a leader in the Advanced Practice community, in addition to being a clinician of excellence. Although extremely rigorous and often trying at times, I feel satisfied and accomplished with this terminal degree. I have been provided with addition skill sets and a more global view of healthcare whilst obtaining the Doctoral Degree. The supplemental course work and clinical hours, on top of the basic Nurse Practitioner curriculum, has surely provided me a solid and broad foundation as a provider.

Upon completion of the Doctor of Nursing Practice Degree, I feel prepared to join the other leaders of the healthcare team to make a positive impact on the future. I look forward to being an influential and contributing member of the community, providing top quality and compassionate care to our nation's patients.

Implementing the 5As Framework for Obesity Management

Jennifer Cecil Sassman, BSN, RN, DNP Student

Dr. Roger Oen, MD, MPH

Natasha Hicks, MSN, FNP-C

Dr. Joseph Bukard, DNSc, CRNA

Dr. Kathy James, DNSc, FNP

University of San Diego

Implementing the 5As Framework for Obesity Management

Abstract

This Doctor of Nursing Practice (DNP) pilot project strives to improve management of obesity by increasing provider knowledge and utilization of the 5As Framework which is an effective evidence-based intervention and a behavioral counseling tool. Pre-data including BMI and waist circumference were collected over one month. An educational in-service on the 5As was held for one primary care nurse practitioner. Post data was gathered over five months. Provider knowledge on the 5As was increased however, there was not an increase in identifying obesity. The 5As was used about 10% of time with obese patients. This pilot project can be expanded to more providers in the practice and needs data over one year to determine long term outcomes such a decrease in BMI.

Introduction

In 2011-2012, a staggering 34.9% of adults in the United States were obese (Ogden, Carroll, Kit, & Flegal, 2014). Obesity not only negatively affects quality of life, but also raises the risk of mortality from diabetes mellitus type 2, hypertension, and dyslipidemia as well as many other chronic diseases (American College of Cardiology/American Heart Association, 2014). Such a high prevalence of this disease state certainly warrants intervention(s) by health care providers (HCPs).

The 2012 U.S. Preventative Services Task Force Recommendation Statement (USPSTF) clearly stated how obesity should be screened for and managed. The USPSTF recommends that all adults aged 18 years or older be screened for obesity using body mass index (BMI). The USPSTF defined overweight as a BMI of 25 to 29.9 kg/m^2 and obesity as a BMI equal to or greater than 30 kg/m^2. Patients identified as obese should be offered intensive multicomponent behavioral interventions (Moyer, 2012). Regretfully, this fairly simple recommendation is not being met. In a cohort study of over 91,000 overweight and obese primary care patients in the United Kingdom (UK), 91.4% of men and 90.3% of women received no treatment for weight management. The percentage of those receiving no treatment declines as the BMI increases, but remains alarmingly high even for the morbidly obese. In the same study, 84.2% of men and 80.2% of women with a BMI of 30 to 34.9 received no weight management intervention; 74.2% of men and 72.4% of women with BMIs of 35 to 39.9 received no weight management intervention, and 60% of men and 58.1% of women with a BMI $\geq$ 40 received no weight management intervention (Booth, Prevost, & Gulliford, 2015). The rates of obesity screening and

counseling in the current literature are only about 30% (Fitzpatrick et al., 2016). This data shows that not only are obese patients not receiving multicomponent behavioral interventions, they are receiving no intervention at all.

In a private family practice primary care clinic, I collected data of the patients seen by one Nurse Practitioner over the course of one month. Total, she saw 240 patients. I excluded any patients less than 18 years of age, pregnant, those who refused to be weighed, and whose weight was unattainable. Out of 199 included patients, 53 patients (26.6%) were obese, having a BMI greater than or equal to 30. Only 31 of the obese patients had the diagnosis of obesity found on their active problem list (58.5%). Similarly, only 18 of the obese patients had any intervention documented regarding weight loss, to include any diet or physical activity recommendations, as well as weight loss and mental health referrals. The 5As framework was not utilized in any patients during this month. Zero (0%) of patients had a waist circumference measurement. In summary, over a quarter of the patients were obese, however, only a little more than half had this problem identified in the electronic medical record. A mere third of the obese patients had any sort of intervention aiding in weight loss, and again, the 5As was never implemented by the provider. This data shows obesity is prevalent in this setting, under diagnosed, and under managed.

<center>Evidenced-Based Intervention</center>

The 5As, which is a framework for behavioral change counseling, was originally utilized for smoking cessation, and is rooted in the behavior change theory (Vallis, Piccinini-Vallis, Sharma, & Freedhoff, 2013). The components of the 5As include Ask, Assess, Advise, Agree, and Arrange/Assist and each component guides the provider

throughout the counseling session (Vallis, Piccinini-Vallis, Sharma, & Freedhoff, 2013). The USPSTF has identified the 5As as a behavioral counseling intervention (Krist, Baumann, Holtrop, Wasserman, Stange, & Woo, 2015). The 5As found in the 2015-2016 Obesity Algorithm is also supported by the Obesity Medicine Association; this is the largest organization of clinicians working to advance the practice of obesity medicine and the treatment of patients affected by obesity (Seger et al., 2015-2016).

A study was done with 23 primary care residents in which half (n=12) received an obesity curriculum intervention based on the 5As framework, and the other half (n=11) were the control group with no intervention. After 12 months, patients' weight loss in both resident groups was compared. In the intervention group utilizing 5As education (n=46), 17 patients lost 1kg or more. Thus, 44.7% of the intervention group experienced weight loss. In the control group (n=41), 9 patients (24%) lost 1kg or more (Jay et al., 2013). The 5As training almost doubled the percentage of patients with weight loss.

Another study was done to determine how often HCPs initiated weight management dialogue before and after a 5As tool and training intervention. Out of 51 patients with a BMI 30 or higher, 19% reported the HCP initiating discussion about weight management prior to the intervention. Following introduction of the 5As tool and provider education, 39% of patients reported the HCP initiated discussion about weight management (Rueda-Clausen, Benterud, Olszowka, Vallis, & Sharma, 2013). The 5As training increased provider initiation of weight management discussion by over 50%.

<div align="center">Project Process Plan</div>

A letter of support, provided from the clinical mentor and physician partner of the primary care clinic was obtained. An Institutional Review Board, from the University of San Diego exemption was granted prior to project initiation.

The Iowa Model was the framework utilized and followed throughout the implementation of this DNP project .

This pilot study focused on one provider in the practice. A previously validated multiple choice and fill in the blank test on the knowledge and implementation of the 5As framework was administered to the provider. The initial score was 8 of possible 21 questions, or 38%, correct. An educational in-service on the 5As Framework, to include waist circumference measurement, was conducted for the provider. The in-service included a poster board presentation. Immediately following the in-service, the same 5As knowledge and implementation test was administered. Post-educational intervention, the provider scored 21 out of 21, or 100%, correctly.

Post patient data collection began immediately following the 5As provider education. For each month, the total number of patients seen was recorded. For each patient, demographics such as age and race were noted, as well as if the visit was for a physical (i.e. health maintenance) or a problem focused appointment. Measurements, including BMI and waist circumference were recorded. As previously stated, I excluded any patients under the age of 18, pregnant patients, those who refused to be weighed, or had an unobtainable weight.

Results

For the first month post intervention, out of 90 included patients, 25 (27.8%) were obese. Of these 25 patients, 15 (60%) had obesity on the active problem list and 10 (40%)

had a documented weight loss intervention. Two patients, or 8% of those with obesity, had the 5As framework implemented. During month two, out of 192 included patients, 55 (28.5%) were obese. Of these 55, 24 (43.6%) had obesity on the active problem list and 18 (32.7%) had a documented weight loss intervention. Six patients, or 10.9% of those with obesity, had the 5As framework implemented. During the third month of data collection, out of 206 included patients, 65 (32.5%) were obese. Of these 65, 31 (47.7%) had obesity on the active problem list and 25 (38%) had a documented weight loss intervention. Six patients, or 9.2% of those with obesity, had the 5As framework implemented. During month fourth, out of 208 included patients, 54 (26%) were obese. Of these 54, 27 (50%) had obesity on the active problem list and 20 (37%) had a documented weight loss intervention. Three patients, or 5.6% of those with obesity, had the 5As framework implemented. Lastly, during month five, out of 90 included patients, 29 (32.2%) were obese. Out of these 29, 17 (58.6%) had obesity on the active problem list and 12 (41.4%) had a documented weight loss intervention. Five patients, or 17.2% with obesity, had the 5As framework implemented.

Over the course of the five-month post data collection, the 5As framework was implemented during 23 appointments and for 17 patients, as some patients had the 5As used at subsequent visits. Of these appointments, 8.3% of the appointments were physicals and 87.5% of the appointments were problem focused visits. BMI was obtained in 100% of the 23 appointments and waist circumference was obtained in 12.5%.

The breakdown in frequency for each of the five components of the 5As Framework is as follows: 'Ask' was implemented 100% of the time, 'Assess' as implemented 100% of the time, 'Advise' was implemented 100% of the time, 'Agree'

was implemented 100% of the time, and 'Arrange/Assist' was implemented 75% of the time. In summary, each component was always used at each of the 23 appointments with the exception of arranging follow-up care, which only occurred at 18 of the 23 visits.

Eleven of the appointments in which the 5As was implemented had follow-up appointments. The mean change in BMI for these patients was + 0.1kg at the subsequent appointment. One patient had waist circumference measured at two sequential appointments and the difference was -3.5 inches at the subsequent visit.

A survey was administered to the provider at the end of the data collection, inquiring about personal opinion on utilizing the 5As Framework for obesity management. Overall, the provider did like using the 5As as a behavioral management tool. She intends to continue using it, and would also recommend it to her colleagues. The provider did not feel the 5As Framework increased her confidence with regards to counseling. Lastly, lack of time was the biggest barrier to implementing the 5As.

Data Analysis

The educational in-service administered to the provider vastly increased knowledge on the 5As framework and knowledge on it's utilization. Over five months, 10.2% of patients with obesity had the 5As implemented at their appointments, showing an increase in 5As framework implementation as compared to before educating the provider. The vast majority, over 88%, of those visits was problem focused and less than 10% were physicals. There was no increase in identification of obesity, as seen on how often the diagnosis of obesity was present on the active problem list if BMI was greater than or equal to 30. It is noted there was not an increase in documented intervention for obesity management.

In terms of overall weight loss, the mean difference showed an increase in weight, albeit only +0.1kg. Waist circumference was decreased by 3.5 inches, although this was only for one patient.

Each component of the 5As was consistently implemented with exception of recommending and/or arranging follow-up care. This last portion of the 5As was the only area not implemented at each appointment.

Tables/Figures

Obesity identified on active problem list and utilization of 5As: pre and post 5A's provider education
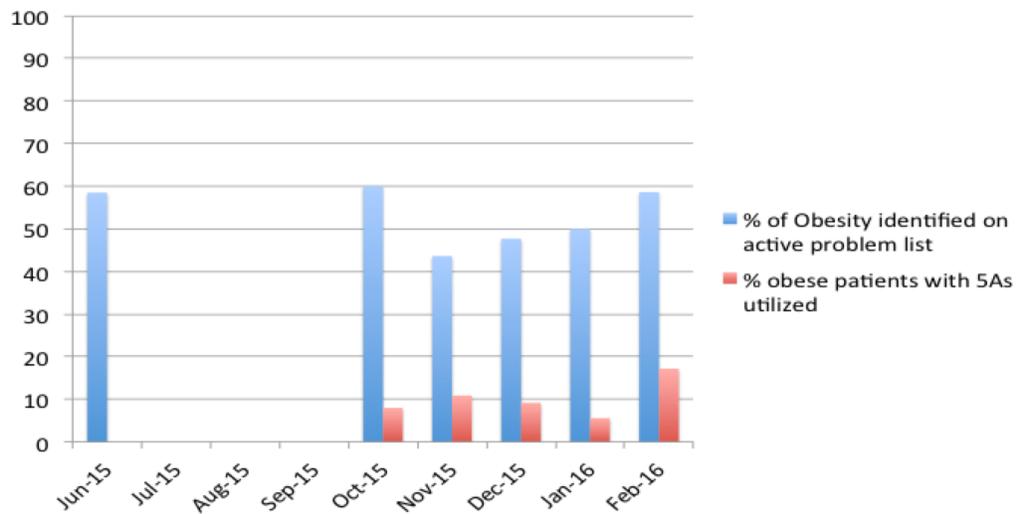
**Occurrence of each portion of
5As implemented**
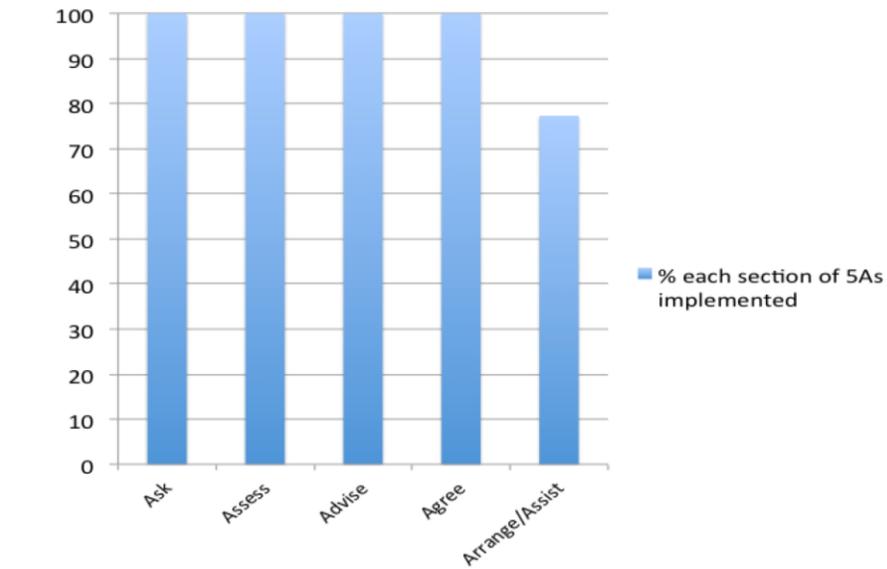
Discussion (implications for clinical practice)

This DNP pilot project was initially only implemented with one provider. Moving

forward, the 5As framework education can be administered to more providers, to include

physicians, nurse practitioners, and physician assistants, in the primary care practice.

Data needs to be collected over a longer period of time, ideally over one year, to

be able to see long-term outcomes such as any change in BMI and/or waist

circumference. It would also be interesting to see change in weight that is not isolated to

around the winter months and holiday season.

Waist circumference needs to be measured and documented during each instance

the 5As is implemented. The biometric measurement can show improvement in overall

health, as decreased visceral abdominal fat (i.e. decreased waist circumference) is a

positive finding, even if there is no change in weight. Loss of inches with serial waist

circumference measurements can also be a source of motivation and positive

reinforcement for patients trying to adhere to lifestyle modifications.

To ensure the 5As framework is implemented in its entirety, is in important the

provider document the recommendation of a follow-up, despite if the patient agrees to the

subsequent appointment or not. As less than 50% of the appointments had follow-up care,

which is necessary for effective behavioral change counseling, it is required the provider

do his or her part and ensure the recommendation is at least made.

It is noted that there is a great opportunity for revenue to be generated associated

with the recommended follow-up appointments. In fact, Centers for Medicare and

Medicaid Services (CMS) will reimburse visits for Medicare beneficiaries when the 5As

is used as a counseling framework for obesity. CMS will reimburse up to one visit every

week for one month, one visit every other week for months two through six, and

contingent if at least a 3kg weight reduction is met in the first six months, up to one

monthly visit up during months seven through twelve (Centers for Medicare & Medicaid

Services [CMS], 2012). One Medicare patient could be reimbursed up to 22 visits for

counseling in one year!

<div align="center">Limitations</div>

As this DNP project was a pilot program, it is a limitation that only one provider

was educated on the framework. This also directly contributes to the small sample size of

patients receiving the 5As framework as counseling. The provider education was held in

October; therefore the post data collection also coincided with the holiday season. This

could potentially have skewed the weight loss results, which may be found to be greater

during other months of the year. The waist circumference was only measured at three

appointments due to constraints with the electronic medical record. There was not the

ability to create a specific place for this biometric measurement that could easily be

retrieved, which overall resulted in the measurement rarely being obtained.

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Concluding Essay

It is such a surreal feeling to look back and reflect over the past three years. I have looked forward to and dreamt about this time for so long, and finally, graduation has arrived.

So many emotions accompany nearing the end of my doctoral degree. Excitement and accomplishment are at the forefront, but there is also plenty of fear and apprehension. Providers have great responsibilities and are looked upon to make sound clinical decisions. As challenging as it was to be a student, there was always the safety net of having a preceptor confirm or correct any given plan of care. I'm hopeful to be humbled each day as a new provider and embrace resetting to a novice as I shift roles from Registered Nurse to a Nurse Practitioner.

I pledge to myself to be a lifelong learner and to strive to remember learning does not cease once the formal education is completed. I readily accept the responsibility to self-educate continuously. Graduate school certainly has not taught me everything I need to know but has given me the tools and skill sets to problem solve, as well as a solid foundation of knowledge and experiences on which to build upon.

I understand and value the importance of integrating evidence-based practice not only into my personal practice but also into working towards changing policies at large. Healthcare has evolved a great deal and will continue to do so over the course of my career. I will always be reassured my practice is the best practice by applying the most current recommendations from sound evidence. I am aware to never become complacent, but to be able to change and develop my practice as evidence-based guidelines are published.

Lastly, I hope I always respect that medicine is not only a science but also an art. Every single patient I encounter has a story and is unique and must be cared for as such. Professional guidelines are useful, but also just that: guidelines. I hope to never ignore my nursing intuition, but instead have it compliment my advanced education, truly melding the art into the science.