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Brief Report

Pathopharmacological Issues Related to Obesity

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Introduction

Obesity is one of the top health issues affecting people in the United States. Not only does this affect the individual, it also affects their families, caregivers, friends, and society as a whole. This article will analyze the various impacts the disease process has on everyone including populations at a local and national level.

Investigation of Obesity

Obesity occurs when there is an excessive amount of adipose tissue in a person's body therefore increasing the amount of body fat. More than 35% of adults in the U.S. are considered obese. In the following paragraphs, obesity will be analyzed and discussed. [1].

Analyze the Pathophysiology of Obesity

Obesity occurs when a person has an increase in the required amount of nutritional substance needed for their body; causing increased body weight. The process leading to obesity is complex, continues to be studied, and is not fully understood by the medical field. There is an accumulation of increased fat cells that occur with obesity resulting in the person's physical appearance changing. [1] Adipocytes are connective tissue fat cells that store energy. Other than storing energy the cells insulate and assist in maintaining body temperature while also protecting vital organs. In obesity adipocytes increase in number and size. They increase volume accommodating an increase lipid storage. Preadipocytes are triggered when the storage of fat cells that are exiting is exceeded. This process normally occurs in the abdomen and subcutaneous tissue, which is a common visual of the obese patient image [1].

The most common cause of obesity is excessive calories. The person eats more than their body requires causing the body to store the energy in the form of fat cells. The fat cells accumulate and the effect is seen as the person increasing in weight and size. There

are different reasons people eat more than their body requires. The following paragraphs will look at the micro level as to why obesity occurs. Genetic and biologic factors contribute to obesity. Obesity is estimated as an inherited problem with 50% or greater being inherited via a genetic link. Several genes have been identified and may influence how calories are stored and energy is released; this explains why two people could live identical lives eating and exercising the same, but vary in body size. [1].

The hypothalamus, gut, and adipose tissue regulate appetite and is the physiologic regulatory mechanism in obesity. The hypothalamus assists in synthesizing hormones and peptides to decrease or increase the appetite; also stimulating it. Listed below are the hormones and peptides associated with obesity and their functions:

- Neuropeptide Y, an appetite stimulant, when imbalance leads to obesity by stimulating the person's appetite causing an increase in ingested calories.
- Ghrelin, produced in the stomach, an appetite stimulant is increased after the body is void of food and decreased once there is food in the gut. When the person has obesity it is found that the natural response does not occur, thus leading to increased appetite and overeating.
- Leptin, secreted from the adipocytes, suppressed hunger and appetite which in turn regulates eating. High levels are associated with obesity. Leptin is increased and the body develops a resistance to it causing the loss of appetite suppression and the person eating when in reality they should not be hungry.
- Insulin, produced in the pancreas decreases appetite. Adipokines produced by fat cells create over 100 different proteins which secrete enzymes, growth factors, hormones, and adipokines that in turn assist in the development of insulin

resistance. When the insulin levels are above normal this leads the person to feel hungry causing them to eat over the amount needed to maintain the body.

- Peptide YY is produced in the colon, it decreases appetite by causing the GI tract to slow down. With obesity circulating levels are decreased causing a reaction where the levels of the peptide are also decreased after eating, therefore the signal is lost due to the peptide not being produced in the colon.
- Cholecystokinin is produced in the duodenum and jejunum; it inhibits gastric emptying and sends signals to the hypothalamus. It is unknown how this peptide is altered in obesity, but it is clear there is an effect on the body. If there is an increase of cholecystokinin released from the fat cells the person could be at a higher risk for cancer and more complications than with other forms of alterations in obesity [1].

Environmental factors also contribute to the cause of obesity. In today's society in the U.S. access to food is easy along with fast food, which is normally high in fat content. Soda and prepackaged foods have a high fat content and low nutrition value, and are a fad. It's easy to grab and go in today's fast paced world. Portion size has also increased dramatically, people are eating more and more. Technology has changed our society as well. People do not get as much exercise as they did before the advancements in technology; an example would be in the 90's kids played outside all day where now they play video games or are on the internet and social media exerting little to no energy. The same can be said about adults; they are on devices more than in the past and do not excerpt as much energy. In the past everything wasn't at one's fingertips, a more physical approach to get the answer was needed instead of the swipe of a hand or typing on a keyboard.

Social economic status also come into play. Depending on your class or status in society as well as ethnicity and foods favored can determine calorie intact and its effects on the body. Psychosocial factors influence a person's perception of food. Food is often used as comfort and many things can trigger the response. Depression and boredom is often related to over eating to satisfy what is missing and is a learned trait. Social events also induce poor eating habits examples are: cake and ice cream at a party, Thanksgiving feasts, fudge and sweet treats at Christmas.

Evidence-based Pharmacological Treatments and Management

The following paragraphs will discuss the evidenced-based pharmacological treatments in Missouri and how they affect management of obesity in my community. The standard of practice starts with determining the cause of the obesity and how the patient views themselves and the disease. Once that is determined the patient can be treated with the facts in mind. Nutritional therapy and counseling is needed as well as an exercise program.

A supervised diet may be ordered to decrease the amount of calorie intact. Behavior modification is the most important and difficult intervention with obesity. Overeating is often a learned behavior; people get used to the amount of food and types of food they like often causing an increase in calories the body does not use. [1].

There are many drug therapies available. Once the physician has decided the person is a candidate for a drug the medication is selected based on the persons health history and what will work best for the patient. Drugs should never be used alone, but in conjunction with nutrition therapy, exercise and behavior modification. The following drugs we will discuss should not be used with patients that have a BMI of less than 27 kg/m². In addition, the patient should have at least one weight related diagnosis such as hypertension, diabetes, or hyperlipidemia. [1]. There are several drug classes used with obesity such has appetite-suppressors, nutrient absorption blocking, serotonin agonist, and phentermine and topiramate (combo drug). The discussion of how they affect management of obesity in my community follows:

- Appetite suppressors (phentermine, diethylpropion, phendimetrazine, benzphetamine): suppress appetite by increasing norepinephrine to the brain, stimulating the CNS. There are two groups amphetamines and nonamphetamines. Amphetamines and nonamphetamines have a high abuse rate and should not be used longer than 3 months therefor they are not the drug of choice for my area as the use of methamphetamines is common in the community. They are not recommended or approved by the FDA for weight loss. [1,2].
- Nutrient Absorption-Blocking(Orlistat): blocks fat breakdown and absorption in the intestine. Undigested fat is excreted in the stool. Alli is a common low dose and is offered over the counter and is one of the drugs used in my community [1,2].
- Serotonin Agonist (Lorcaserin): selective serotonin agonist that suppresses the appetite and creates a sense of satiety. It activates the serotonin receptor in the brain and helps to give the feeling of being full without eating a large amount [1].
- Qsymia: combination of phentermine and topiramate. Phentermine suppresses the appetite and topiramate induces the since of satiety. This is the drug of choice in my community, although only a handful of providers will prescribe it with the increased chance of dependence and risk of increasing heart rate leading to heart attacks or strokes. Most patients feel it makes them feel better and gives them more energy therefor they want to continue the drug when no longer needed [2]. Close monitoring is needed and only a 30-day supply is given at a time with a monthly appointment needed to monitor weight, heart rate, blood pressure and overall health and affect the drug has on the patient [1,2].

Clinical Guidelines for Assessment, Diagnosis, and Patient Education

In the following paragraphs the standard of practice for obesity and the clinical guidelines for assessment, diagnosis, and patient education will be discussed.

- The clinical guideline for assessment of the obese patient include but are not limited to:
- Diagnostic history and physical, BMI, and waist to hip ratio
- Subjective data: health history (onset, diseases related to obesity and metabolism like cardiovascular issues, cancer, joint pain, respiratory issues, diabetes), medications, surgery or other treatments related to reducing weight.
- Functional health patterns: health perception and management (what is the patients perception, is there a family history), nutritional-metabolic (amount, type, frequency of eating, is it a response to something such as stress or boredom), activity and exercise regimen (contributors such as dyspnea), Sleep and rest (do they use a CPAP), Cognitive perceptual (what are their feelings, depression, guilt, isolation, do they find meaning or value in food, have they tried diets in the past, are they committed long term to loosing weight), role-relationship (is there a change in finances or family, do they have the support emotionally and financially to support a diet plan), sexuality-reproductive (menstrual cycle and detail, birth control, effect on sexual activity and attractiveness, infertility)
- Objective data: Body mass index greater than 27-30/kg/m², waist circumference differs for woman (greater than 35 in.) and men (greater than 40 in.), respiratory (increased effort, wheezing, rapid, shallow), cardiovascular (hypertension, tachycardia, dysrhythmias), musculoskeletal (joint issues, decreased mobility and flexibility, knee, hip, low back pain), reproductive (gynecomastia and hypogonadism), possible lab and diagnostic findings(elevated serum glucose, cholesterol, triglycerides; chest x-ray shows enlarged heart, electrocardiogram shows dysthymia, abnormal liver function tests) [1].

A diagnosis of Obesity can be made my using a classification system with the most common being body mass index (BMI) and waist circumference. Other methods less common are waist to hip ration and body shape; these measures are cost effective and are easy to use. [1]. BMI is the most common measurement of obesity. When calculating the BMI you divide weight in kilograms by the square of height in meters. A normal BMI is 18.5-24.9 kg/ m². 25-29.9 kg/m² is classified as being overweight. The diagnosis of obese is made for a BMI of 30 kg/m² or greater with a BMI of 40 kg/m² or greater is diagnosed as severely obese often termed morbid obesity. [1].Waist circumference can determine a diagnosis

of obesity by simply measure in the patient's waist circumference. Men with a waist circumference of 40 inches or more and women with a waste of 35 inches or more are diagnosed as obese when using this method. [1].

Patient education is an important part of practice for patients diagnosed with obesity. The focus for educating patients are: modifying their diet, regular physical activity, maintain weight loss at a specific level, and prevent and minimize health issues related to the obesity. [1]. Patients need to be taught how to modify their diet and maintain a healthy diet. There are many ways to achieve this goal such as smart phone apps, charts, weight loss food systems, and food diaries to name a few. Regular physical activity is needed to assist with the weight loss. It needs to be scheduled and can advance in duration and intensity as the patient progresses through the program. It is essential to have physical activity and regular intervals such one hour a day 5 days a week. [1].

Maintaining weight loss at a healthy level is essential. Patients need to be careful not to lose too much weight at once; constant progressive weight loss is found to have a higher success rate than those who loose large amounts in a short time. It is not recommended to weigh daily as this can be discouraging when weight often fluctuates. The patient should be encouraged to weight weekly on the same day, same time, same scale with same amount of clothing on for a more accurate weight. [1].

Preventing and minimizing health issues are an important factor in health care. Prevention education is the number one choice of education for those patients tipping the scale from a healthy weight to being overweight. Prevention education such as healthy diet and lifestyle combined with exercise is the best education one can have. Stress the importance of regular physical activity (one hour of moderate activity at least 5 days a week). Educate patients on a healthy diet and what that entails. For patients who have a diagnosis of obesity education on preventing further damage to their system is needed a healthy diet and exercise is an essential part. Being active and losing the weight will prevent further damage. It is also important to educate them on signs and symptoms of diabetes, cancer, and cardiovascular issues as these are common with patients who are obese. [1].

Comparing the Standard Practice for Managing Obesity

When comparing standard practice for managing obesity within my community with state and national practices it is determined the community I serve manages obesity much like all of the U.S. as this is now a common disease and seen often in our society. The common medications are used after the patient has tried other methods of weight loss such as diet and exercise regimens, if this is not an option for fails to work for the patient a surgical intervention may be done and has become popular in treating obesity. Bariatric surgery has been successful and helped

to sustain weight loss for severely obese patients. There are several types of surgical interventions such as gastric banding, vertical sleeve gastrectomy, and Roux-en-Y Gastric Bypass. [1,2].

Characteristics of and Resources for a Patient who Manages Obesity

The following paragraphs will discuss characteristics of and Resources for a patient who manages obesity well, including access to care, treatment options, life expectancy, and outcomes.

A patient who manages obesity well must be self-disciplined, honest with themselves, and motivated. These patients will attend medical appointments and support groups as recommended by the physician. The patient will also be open and honest with all of the care team including their support person. A support person is very important for the patient to have; they need to be involved in the patients care and genuinely care for the patient, being available for support, advice and encouragement.

There are several resources for obese patients and they play an important factor in the success of the patient's management of the disease. Nutrition is an import part of the patients plan of care; for this a nutritionist is an important resource. There are many resources available to patients with some examples found at the American Medical Association's web site. There are also links to several forms, handouts, online programs, and the CDC and USDA web sites. Some other resources that will assist the patient to be successful in managing their disease are as follows:

Support groups: Include health care team (Doctor, nurses, social worker) which can assist and recommend several supportive techniques and options. The Obesity Action Coalition has educational tools as well as a region list of support groups. Local support groups, online support groups and forums provide positive encouragement and support.

Handouts: Handouts provide positive reminders that the person can access quickly. There are several resources available that have user friendly handouts. The documents can be uploaded to a smart phone or other electronic device or printed out. Some topics cover planning healthy meals, how to talk to your doctor, physical activity ideas, and stress management [3].

Access to care plays an important factor to the success of managing obesity. The patient who manages it well will have easy access to care. They will be relatively close to the clinic and other support services and have resource options available to them. They will have reliable transportation that accommodates their size and other physical disabilities. Often times when a patient is severely obese they cannot ride in a normal vehicle. I have seen patients transported in an ambulance due to their size. Also riding in the back of a minivan with the seats removed. Getting to the mode of transportation is also difficult so having ramps and

wheelchairs with a clear pathway is necessary to safely get to the mode of transportation. The person must be highly motivated to get out to the site to receive the care they need. Often times they are embarrassed about their size and the difficulty in ambulation, which can affect their access to care.

Treatment options for patients managing obesity must be the patient's choice to have success. What will work best for the patient? How compliant is the patient with current regimens and will they be compliant with the new plan? Does the patient have a good support system in place? Those are factors that are a must to consider before a decision will be made on the treatment of the patient. The patient's treatment is patient specific; no two patients are the same and everyone needs to be treated as valued individual of society. Some treatment options are Nutritional therapy, exercise, behavior modification, drug therapy, and surgical intervention. [1].

Drug therapy can be expensive and requires compliance. The patient needs to have a pharmacy within their reach to attain the drug and have a relationship with the pharmacist who can assist with any drug related questions. It is important for the patient to be compliant and know the warning signs of adverse effects of a drug. The patient will have insurance or financial resources to cover the drug for it to be successful. The patient's body must be able to tolerate the drug without severe adverse effects. The right drug for the patient must be found for it to be successful in treating the patient.

The majority of people who have bariatric surgery improve their quality of life. Those people who are good candidates for surgery and opt to have it, if compliant with the aftercare are able to manage their obesity. There are restrictive surgeries (adjustable gastric banding, vertical sleeve gastrectomy), malabsorptive surgery (biliopancreatic diversion), and restrictive combined with malabsorptive surgery (roux-en-Y gastric bypass). Each surgery is different and suited for specific patients. [1]. Adjustable gastric banding is the most common restrictive procedure. A band is placed around the fundus of the stomach restricting how much content the stomach can hold; this creates a sense of fullness. The band can be adjusted from an outside port to allow the patient to achieve desired results. The vertical sleeve gastrectomy is where most of the stomach is removed leaving a small sleeve shaped stomach. The stomach generally holds 60-150 ml after the procedure and helps the patient to feel full as there is a smaller area to fill. [1].

Biliopancreatic diversions a procedure that removes 70% of the stomach which decreases the of small intestine that can absorb nutrients. A duodenal stitch may be placed depending on the needs of the patient. This procedure produces a malabsorption effect. [1]. Roux-en-Y gastric bypass is the most common procedure in the U.S. and is considered the best option available to most patients. A small pouch is created and connected to the jejunum using a Y

shaped portion of the intestine. After the procedure 90% of the food bypasses the stomach, duodenum and a small portion of the jejunum. There are low complication rates, high success with weight loss and maintaining the loss. [1].

Life expectancy is greatly improved with a patient who is successful at managing obesity. By managing obesity, the other complications are managed as well. Patients who are obese at risk for several other problems. Mortality rates rise as obesity increases also decreasing the quality of life. The person who suffers from obesity is also at risk for cardiovascular problems (heart disease, high cholesterol, vessel problems, hypertension), Diabetes mellitus, GERD, gallstones, liver problems, respiratory, sleep problems, musculoskeletal problems, cancer, metabolic syndrome, and psychosocial problems. Illuminating some of the risks associated with obesity prolongs the patient's life, as well as improved their quality of life. [1].

The outcomes for a patient who manages obesity are attainable. The goals the patient will accomplish are: 1. Modify eating patterns 2. Regular physical activity 3. achieve and maintain weight loss specific to their care plan 4. minimize and prevent health issues related to the disease. Overall the evidence the outcomes are being met could include the patient feeling better about themselves, a feeling of overall health, improved glucose and cholesterol levels, decreased blood pressure, decreased GERD, and a decrease in sleep apnea [1].

Analyze Disparities of Management of Obesity

When analyzing the disparities between the management of obesity on a national and international level it is difficult to compare obesity in different countries due to the use of different classification methods used and the inconsistency. Obesity is increasing in most of the world and is definitely an issue affecting us all [4]. In the United States people have access to health care, which is for the most part current on how to treat obesity. Other parts of the world are not so fortunate. I have discussed previously ways obesity is treated in the U.S. and will now discuss how obesity is managed or mismanaged in other areas of the world.

China and the Middle East are also seeing a rise in the rate of obesity. Due to a lack of infrastructure to treat the chronic diseases associated with obesity there are many struggles associated with managing this disease. As developing countries improve economically, diet changes as well as activity causing weight gain which is not something developing countries have experienced. In the past the nutrition issue has been undernutrition and they are now seeing over nutrition. The management is mostly based on prevention, increasing physical activity, and food based changes. Countries that are not quite urbanized do not have physicians, hospitals or the resources we have in the U.S. that help to manage obesity. When obesity is left unmanaged it leads to other health

related issues that can end up consuming the person and lead to their demise as they are not treated either. Health care is not ready available or affordable in other countries nor are the resources such as internet based programs, support groups, and education programs. There are however more advanced countries which share the same practices we in the U.S. are accustomed to [5].

Contributing Factors to Manage Obesity

Financial resources, access to care, insured/uninsured, and Medicare/Medicaid all contribute to a patient being able to manage the selected disease.

Patients who have the means to get care such as transportation, physical ability, and mental ability are able to maintain a better health status and able to manage their disease by having access to care. When participating in health care most seek to improve their life. Being committed and following through with the care plan is essential to be successful. Health care and programs can become quite expensive. Financial status must be considered when trying to decide if a patient will be successful in managing their disease. When a person is financially stable, they are able to purchase foods to improve their health. Exercise programs can be costly even if you are just looking for DVD's. Gas for appointments and maintenance can become expensive as well as medications, surgeries, and missed work.

Insurance is important when managing obesity. Whether a patient has private insurance, Medicaid or Medicare some type of insurance is beneficial to have when incurring costs associated with obesity and the other health issues it can contribute to or cause. When one has Medicare there is a copay which is normally 20% and does not cover prescriptions unless you have that coverage, therefore, a supplemental insurance would be needed with Medicare. Copays and patient responsibility must also be considered when managing one's health. Often insurances and Medicaid have a chain of best practices that must be followed such as modifying diet and exercising before they will provide medications or surgeries.

When a person is uninsured there will be many obstacles as it is expensive to manage obesity and the other health issues it may contribute to or cause. Without health insurance or financial means the disease may not be managed. Support groups, food choices, exercise plans and programs all cost money. Doctors' visits, tests, prescriptions, and surgeries can be very expensive as well. A doctor's visits can cost anywhere from 65-150 dollars per visit and generally there are many appointments needed to manage this disease.

Lack of Financial Resources Leads to Unmanaged Obesity

A lack of resources can lead to unmanaged care. Without financial resources the patient cannot pay for doctors' appointments, tests, medications, surgeries, transportation, a healthy food plan

and other things needed to manage care. Having a support system is essential when managing care and often people find support in local groups and online forums and groups without transportation or the means to get online this is not possible to achieve. Access to care is needed to manage obesity without access to care the patient cannot get better. When they are unable to get care the obesity causes other health issues which in turn are not managed leading to the patient's quality of life decreasing. Often the patient is depressed to begin with and adding additional health problems will only worsen their quality of life. Uninsured patients will not receive the care that is needed to control and manage obesity. Doctors' appointments, medications and procedures are quite expensive and without insurance it is unlikely a person will seek medical help.

Medicaid generally pays for doctors' appointments, tests, medications, and procedures if authorized. Often the patient must try other less expensive and invasive techniques and compliance as well as physician input is taken into account. This can be a lengthy process which can alter how the patient participates in their health care plan. Medicare is a great resource coupled with a supplemental insurance. Without the supplemental insure 20% of costs as well as medications is the patients responsibility. If the patient is covered by an HMO they must authorize any care, medications, and procedures which can hinder the success of the patients plan of care leading to poor management of obesity and the comorbidities associated with it.

Characteristics of a Patient with Unmanaged Obesity

Patients that have unmanaged obesity will often be depressed, have low self-esteem, and withdraw from society. They have a difficult time getting around with altered mobility, and or gout. They may have a history of cancer. Patients may also become short of breath with little exertion such as changing position or ambulating a short or long distance taking breaking when doing any activity. The patient may also suffer from sleep deprivation and may be on a CPAP machine related to the extra adipose tissue restricting the respiratory systems normal function. [1]. Many patients complain of GERD and are on medication to prevent indigestion symptoms. The patient may have a history of hernias related to the extra weight and its toll on the body. The patient may have glucose and be on medication or getting their A1C checked regularly anticipating a new diagnosis. [1].

Cardiovascular issues may be noted and the patient may be on medication for hypertension and or high cholesterol. Many of the health risks and comorbidities associated with obesity by be decreased or eliminated with the management of obesity. Patients can even lower the signs of the disease and be able to manage the diseases with diet and exercise. Once the person reaches a healthy weight their overall health tends to improve such as cholesterol levels decrease as well as blood pressure and glucose levels. The person feels better about their self and becomes more active and

less withdrawn from society furthering their ability to maintain a healthy weight and life style. [1].

Obesity Affects Patients, Families, and Populations

Obesity affects not only the patient, their family and community as a whole. The disease affects patients and their quality of life, physical and mental aspects of their life is altered. They can become withdrawn and not participate in an active life. Patients are often stigmatized and discriminated in the areas of employment, education, and health care. They may experience joint pain and feel shame coupled with the other comorbidities associated with obesity.

Families are affected by their loved one having obesity. They may be responsible for their care; ADL's, transportation, personal care as well as cooking and cleaning. Obesity takes a toll on caregivers especially if they are lifting and assisting obese family members. They may also be responsible for wound care in areas that are private to the loved one, crevices often get irritated and require care that the patient may not be able to give due to mobility restrictions. The patient may be confined to the home or choose not to leave the home making the loved one sole communication source pertaining to conversation and the outside world. The patients loved one may also have mental stress associated with societies view of the obese patient. Often patients are regarded as lazy when in all actuality that may not be true. They may be asked questions about their loved one that makes them uncomfortable as well leading the loved one to withdraw from the patient.

The community as a whole is affected by the obese population. They may or may not be able to contribute to society in a meaningful way. Depending on their insurance the cost incurred by the disease and its comorbidities affect all of us. Often nurses are uncomfortable talking to obese patients as they do not want to offend them or hurt their feelings which in turn does not allow the issue to be addressed.

Financial Costs

Financial costs from diagnosis to treat can become a tremendous amount for patients, families, and the general population. Research and programs are a cost to the population as a whole as well as the insurance implications. Often times patients may be on Medicaid or Medicare which is government or state funded by tax dollars from the people.

Families may incur costs such as missed work for transporting their loved one and transportation in general. They may alter their meals plans and exercise habits to assist with the patients support. Families may also help the patient financially with food, housing, equipment, medications, and copays which can be cumbersome for families without a high income. Patients will incur costs such as transportation, medication, copays, procedure costs, lab costs, missed work, change in diet and types of food (fast food versus healthy meal prepared at home).

On average the patient may spend \$20 on transportation to appointments per month. Say they have a copay for Doctor appointments of \$35 per visit and see the Doctor twice a month that would be \$90 for gas and copays alone. Lab exams could be factored in at \$300 after the co pays. If the patient orders from the dollar menu at a fast food restaurant three times a week but is now eating a healthy salad that could increase their food bill \$120 per month.

Once the physician orders a medication that is \$40 per month and the patient takes it for a year the total for the medication would be \$480. Say at that point the patient has their weight at the desired optimal healthy weight. Coupled with an exercise program or membership to a gym running around \$1000 per year, without factoring in any comorbidities the total for a patient expense to manage and get their obesity under control over the span of a year and a half would be over \$5210. As one can see managing a disease is not an easy task looking at the financial side alone is overwhelming.

Promoting Best Practices for Managing Obesity

I work in the home health setting where I have the opportunity to affect patients and promote health. The main responsibility for a nurse in home health is to educate and support the patient. I have learned a lot from this in-depth look at obesity. I am not comfortable talking or addressing obesity, as I don't want to insinuate or hurt my patient's feelings. After analyzing this disease, I feel obligated to address obesity and educate my patients on prevention and management.

Strategies to Implement Best Practices

Some strategies I plan to use to implement best practice for obesity will involve education, support, and encouragement. Providing educational materials such as web sites and handouts to patient about why it is important to manage obesity and how to manage their obesity will give them a starting point. Some other educational materials would be support groups, forums, exercise programs and ideas, health eating and meal planning information such as counting calories and how to manage calorie intake. Supporting the patient and actively listening to their concerns and answering questions will assist them with opening up and trusting others as they began the journey. Encouraging them to seek help from physicians, family, friends, support groups and just encouragement in general that they can be successful. Helping them to see some of the comorbidities caused by or that is accelerated by being overweight.

Using compassion and understanding without judgement while discussing this sensitive topic is a must. Explaining their options and providing information on financial burden with the end goal in a positive light although letting them know it takes commitment and motivation as well as support and honesty.

With the help of management an in-service could be held about the importance of addressing and managing obesity. Many of the components of this paper could be used or a dietitian could come in and give a presentation. The nurses could then have an algorithm to promote steps to assist patients identified as needing help managing their obesity. Folders containing information and resources for managing obesity could be handed out to nurses to provide to the patients.

Method to Evaluate the Implementation of Strategies

To evaluate the implemented strategies a survey could be created to ask patient questions pertaining to their experience with home health in relationship to their diagnosis of obesity. Records can be obtained with the patient's permission and spreadsheets with patients' weights, lab results, and vital signs could be composed and compared to help evaluate the success of the program. Surveys given to the nurses and care providers for the patient could be given via phone or in person after the patient is discharged and results could be compiled to evaluate the care team's thoughts and anything that may have hindered progress. During weekly meetings when discussing patients, the patients who are obese and are receiving education pertaining to that diagnosis could be discussed and notes could be taken for an overall picture of the strategies that were implanted. Overall, this would take at least a year before any definitive results could be compiled. We have a protocol for pneumonia and CHF patients now similar to this proposal which I believe would help identify and assist the obese population which is often not addressed in home health.

Conclusion

This is an eye-opening experience for nurses. Nurse and communities fail to address obesity and its effects on society, as well as patients, caregivers, and families. It is important for people to manage their obesity, but they cannot do it alone. Nursing and the healthcare field need to stop overlooking this disease and give their full attention to it. The use of smart phones; technology at our fingertips both hinders and helps us, causing less physical activity, but can also assist us with apps and access to ways to manage obesity.

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