

Community Nursing Diagnosis Paper

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This spring semester (2012) a clinical group of Kent State nursing students were assigned to the community of Akron. This is where the students learned about community health nursing and the role community health nurses play among the population. The community health nurse must look at the whole picture: the person, the family, and the community within the environment (Harkness and DeMarco 2012, p. 19). The students had an opportunity to enter the community of Akron and assess the population as a whole. While collecting data through techniques such as vital statistics, demographics, windshield surveys, expert interviews, and analysis of existing data sources on Akron it was discovered that an area of weakness existed within the community. Due to high obesity rates, low income status, numerous fast food chains, and nutrition health related issues, it was clear to see that healthy eating habits lacked throughout the city of Akron. The clinical group wanted to encourage healthy life styles and promote cardiovascular health, stress management techniques, nutrition, and fitness through education.

The overall goal was to improve the lives of the citizens in Akron. As a group, the nursing students formed a nursing diagnosis: Risk for heart disease among Akron City Adults related to ineffective health maintenance as evidence by heart disease is the leading cause of death in Summit County (Healthy Ohio Community Profiles, 2008) see assessment tool. The intervention that was developed included educational information for all members of the community. A health fair was held at Akron public Library on Thursday, April 5, 2012. Four different stands were set up, with students at each, educating community members of Akron about cardiovascular disease along with blood pressure screening, and nutrition information

combined with healthy recipes, and shopping tips for eating healthy on a budget. Also fitness exercises and stress management techniques are included. Studies have implied that positive lifestyle intervention programs in the community setting are effective in reducing modifiable risk factors associated with cardiovascular disease, the leading cause of death and a primary contributor to morbidity in the United States (Farrel et al., 2009, p. 733). Through the community intervention the goal was to give the community of Akron the tools needed to begin and maintain healthy eating and healthy living habits.

Literature review

Cardiac

Our clinical group is attempting to address the risks for heart disease within the Akron city adult population, and provide evidence for programs or treatments in which to reduce that risk.

Physiology

Literature #1- Coronary heart disease: causes and drug treatment-- spouses' conceptions.

This qualitative study aimed to explore the misconceptions behind the causes of coronary heart disease in family members of heart disease patients. The study was performed through taped semi-structured interviews of 17 women and 8 men, which were then transcribed. The results of the study determined that almost all of the spouses understood the importance of decreasing fat intake in heart health, but not lifestyle changes such as smoking cessation, physical activity and stress management. Further education was needed at a community level rather than hospital setting, in order for the spouses to have a better grasp of the disease.

Literature #2 - Blood pressure guidelines and screening techniques

This article provides information on the causes of hypertension, ways to screen for it, and provides simple terms in which to describe the physiology behind blood pressure. Screening for hypertension outside of the health care facility can be helpful in diagnosing untreated hypertension, in this example, taking patients blood pressure at the dentist's office has proven effective. Undiagnosed hypertension and improper management can lead to cardiovascular disease, heart failure, stroke, and kidney disease.

Literature #3- Blood and hypertension: the damage of too much pressure.

This nursing article states that education alone isn't effective on reducing people's chances of hypertension. Regular screenings and follow ups are essential. It outlines the biological factors that lead to hypertension and other causes, consequences, lifestyle changes and pharmacotherapy. Measuring blood pressure accurately is also important in correctly diagnosing HTN and monitoring it. Such steps include: avoiding tight clothing, exercise, caffeine or smoking before having their BP measured.

Literature #4- Pregnancy and heart disease: An overview.

This article outlines the risk of maternal death due to undiagnosed hypertension in pregnant mothers. It also outlines the hemodynamic changes that occur in the body during pregnancy. Screening and diagnosing early is important for a healthy pregnancy. Normal findings in pregnancy include fatigue and breathless on exertion, mild pedal edema, reflux, a sinus tachycardia of 10-15% above normal, a third heart sound, soft murmurs, and palpitations

lasting a few seconds. Abnormal or pathological problems can occur when there is a fourth heart sound, tachycardia greater than 15%, sustained palpitations, loud systolic murmurs or any diastolic murmur, chest pain on exertion, and edema beyond the ankle.

Nutrition

According to the U.S. Department of Agriculture and the U.S. Department of Health and Human Services' *Dietary Guidelines for Americans, 2010*, the major nutrition-related risk factors for cardiovascular disease include high total blood cholesterol, hypertension, overweight and obesity, and excessive alcohol consumption. The *Dietary Guidelines* provide recommendations for foods to consume less of including sodium, solid fats, cholesterol, added sugars, refined grains, and for some, alcohol; foods to consume more of including vegetables, fruits, whole grains, fat-free or low-fat milk and milk products, protein foods (seafood, lean meat and poultry, eggs, beans, peas, soy products, nuts, seeds), and oils; and building healthy eating patterns by providing eating templates like DASH and the Mediterranean Diet.

According to Chummun (2009), eating a diet high in saturated fats and cholesterol increases blood levels of cholesterol and can result in a build-up of arterial plaque deposits contributing to cardiovascular disease. Total fat intake for adults should be 20-35% of calories. Animal fats are typically saturated with the exception of seafood, therefore consumption of major sources of saturated fats such as full-fat cheese, pizza, chicken, sausage, bacon, and ribs meat should be limited (Dietary Guidelines, 2010). Cholesterol intake should be less than 300 mg per day to maintain normal blood levels, however men average about 350 mg per day (Dietary Guidelines, 2010, p.27). The cholesterol needed for physiological function is made by the body; therefore dietary cholesterol is not necessary. Dietary cholesterol is only found in animal foods, with the major sources being eggs, chicken, and beef. According to Pauwels

(2011), the Mediterranean Diet has been linked to decreased occurrence of cardiovascular disease due to the antioxidant and anti-inflammatory properties of the ingredients. Staples of the diet include nuts, fruits, vegetables, olive oil, fish, legumes, whole wheat bread, and red wine with meals. In a study comparing the United States, Japan, Finland, Italy, Greece, Yugoslavia, and the Netherlands, the Mediterranean countries showed a significantly lower incidence of cardiovascular disease than the other countries. Incorporating these findings into patient education can help patients to make better heart healthy food choices.

DASH (Dietary Approaches to Stop Hypertension) is a diet plan based on increasing intake of fruits and vegetables and low-fat dairy foods and reducing intake of fats, that has been shown to lower blood pressure by reducing sodium intake. In a study by Rankins, Sampson, Brown, and Jenkins-Salley (2005), the DASH diet was implemented in a group of low-income, African American men with poorly controlled blood pressure. As well as following the DASH diet, for eight weeks the group members met one night a week for BP and weight monitoring, an education session, recipe demonstrations, dinner, and “table talk.” The education sessions included how to identify DASH foods; following recommended serving sizes; how to plan, shop for, handle, and prepare DASH foods; and using the Nutrition Facts label to select foods meeting DASH guidelines (p.260). Improved blood pressure control was associated with participants who missed no more than two dinners. This study serves as a model for community health professionals implementing interventions to promote heart healthy lifestyle choices.

Excessive sodium intake is known to raise blood pressure and cause hypertension, which is a major risk factor for heart disease. An article published in *Morbidity and Mortality Weekly Report* titled *Vital signs: food categories contributing the most to sodium consumption* (2012), summarizes the proportions of sodium consumption from specific food sources among 7,227

participants that were estimated using the *What We Eat in America*, National Health and Nutrition Examination Survey, 2007–2008. The current *Dietary Guidelines for Americans* daily recommendation for daily sodium intake is <2,300 mg overall and 1,500 mg for specific at-risk populations. Among the survey participants, the average daily sodium consumption was 3,266 mg. Greater than 75% of that sodium is estimated to come from restaurant and processed foods, while only 5-6% is added to meals cooked at home. 44% of the sodium consumption came from these 10 food categories: bread and rolls (7.4%), cold cuts/cured meats (5.1%), pizza (4.9%), fresh and processed poultry (4.5%), soups (4.3%), sandwiches like cheeseburgers (4.0%), cheese (3.8%), pasta mixed dishes (e.g., spaghetti with meat sauce) (3.3%), meat mixed dishes (e.g., meat loaf with tomato sauce) (3.2%), and snacks (e.g., chips and pretzels) (3.1%) (p.2).

Reducing the average daily population sodium consumption by about one third is projected to reduce blood pressure and decrease the number of new and recurrent cases of heart attack.

Reducing the mean population sodium consumption by 400 mg may prevent up to 28,000 deaths and save \$7 billion in health-care expenditures annually. Population-wide strategies to reduce sodium intake include the Institute of Medicine's recommendation for food manufacturers to voluntarily reduce sodium in products, implementing policies at the state and local level to reduce sodium in processed and restaurant foods, and encouraging health-care providers to counsel patients on choosing low sodium foods.

Exercise

There have been numerous studies attempting to connect exercise with heart disease, which is the cause of one-third of United States deaths every year (American Heart Association, 2012).

With that in mind, it is extremely important that better prevention techniques are implemented.

These studies have concluded that having an exercise routine can provide primary and secondary

Heart Disease prevention. It can also help alleviate stress, decrease inflammation, morbidity and prevent death (Milani, 2011).

Hypertension, high cholesterol and metabolic syndrome have all been associated with Heart Disease in adults, as both early risk factors and co-morbidities in individuals with Heart Failure. When an exercise program was initiated and maintained, however, hypertension risk was lowered by around 27%, metabolic syndrome risk was reduced by almost half, and risk of high cholesterol was decreased by around 28% (Lee, 2012).

A regimented exercise-training program (including rehabilitation therapy and education classes) has been shown to reduce C-reactive protein (which rises in cases of inflammation) levels by up to 40%. Those who maintain their routines can see up to a 34% reduction in 5-year mortality rates. Depression and anxiety can also be decreased with exercise therapy (Lee, 2012). Relieving feelings of depression can increase energy and self-esteem as well, which can promote continued exercise.

Recommendations for prevention of heart disease include 30-60 minutes of exercise 5-7 days a week. The level of intensity depends on the person and co-morbidities (Tierney, 2012). This can include anything from a brisk walk or simple yoga to running, depending on the individual.

Barriers to exercise training include lack of referrals for eligible patients, lack of education on the benefits of exercise, lack of motivation by the patient and inability to attend (due to transportation issues, schedule conflicts, etc.) (Tierney, 2012). One of the most common barriers to exercising is lack of adherence to routines. Strategies to improve adherence that have

shown to be effective in short term (less than one year) maintenance include supervision during exercise with support, setting fitness goals and positive reinforcement (Tierney, 2012).

Other significant barriers to exercise include low socioeconomic status and lack of strong self-efficacy. Studies show support that those who are closer to the poverty line are less likely to adhere to an exercise routine. Additionally, it is shown that the individual is greatly influenced by their perception of the disease and how much control they have over future outcomes (Murray, 2012)

Stress Management

Swann (2011) stated the stress response by the body starts out by the adrenal glands releasing various hormones such as epinephrine, norepinephrine, and glucocorticoids (p. 483). This hormonal response increases blood pressure, heart rate and respirations (Swann, 2011, p. 483). Over time these effects can pose harmful effects on body systems (Swann, 2011, p. 484). At first anxiety might develop along with chest and back pain due to muscular tension (Swann, 2011, p. 484). Later, more severe effects include heart racing, nausea, dizziness and tremor develop (Swann, 2011, p. 484). Prolonged secretion of glucocorticoids increases blood pressure, the risk for heart attacks, stroke and diabetes (Swann, 2011, p. 484). A few tips Swann (2011) wrote to prevent stress are getting enough sleep, avoiding excessive amounts of caffeine and alcohol, allowing time to relax and eating healthy (p. 484). Also, realizing stressors and coping mechanisms, being positive and setting goals may reduce stress before it has harmful effects on the heart and entire body (Swann, 2011, p. 484).

Varvogli and Darviri (2011) stated that stress is more likely to lead to negative health outcomes of hypertension, obesity and cancer for example (p. 75). The authors discussed several interventions for stress management, all of which are found to reduce blood pressure, improve cardiovascular disease and diabetes management (Varvolgi & Darviri, 2011, p. 75). Progressive muscle relaxation is the gradual contraction and relaxation of muscles (Varvolgi & Darviri, 2011, p. 75-76). Autogenic training uses visual imagination along with visual cues to reduce stress (Varvolgi & Darviri, 2011, p. 76). Relaxation response is used by activating the part of the hypothalamus that is opposite from the stress response (Varvolgi & Darviri, 2011, p. 76). The relaxation response technique involves repetition of thoughts, prayers and when other thoughts intrude, they are pushed away by the repetitious thoughts (Varvolgi & Darviri, 2011, p. 76). Biofeedback uses concrete assessment tools such as brain waves and temperature is used together with changing thinking, emotions and behavior (Varvolgi & Darviri, 2011, p. 76-77). Cognitive behavioral therapy involves cognitive restructuring which involves changing of the thought pattern (Varvolgi & Darviri, 2011, p. 79). Mindfulness based stress reduction is a mediation group program (Varvolgi & Darviri, 2011, p. 79-80). Emotional freedom technique is when a person taps on one of nine acupoints while at the same time saying a short meaningful phrase (Varvolgi & Darviri, 2011, p. 80).

Yehunda (2011) describes music being an important intervention for stress management (p. 88). Music elicits positive, genuine emotions, and in order for it to have optimal stress relief it has to be self-selected (Yehunda, 2011, p. 87). It is hypothesized that stress causes cortisol levels to rise, while music decreases the cortisol levels (Yehunda, 2011, p. 89). Other stress management techniques such as progressive muscle relaxation, guided imagery for example can be used effectively with music (Yehunda, 2011, p. 90). It is also noted that music besides the

subjective comments related to reducing anxiety, is shown to reduce systolic blood pressure and heart rate (Yehunda, 2011, p. 89).

Programs aimed at stress management include group therapy, individual therapies like the ones listed above, and social support groups. Based on the research study conducted by Schulz, Ruth, Pischke, Weidner, Daubenmier, Elliot-Eller, Scherwitz, Bullinger and Ornish (2008), support groups for stress management if attended regularly significantly decrease systolic blood pressure (p. 428). These patients were more likely to exercise, have a healthier diet and in general a greater quality of life (Schulz et al., 2008, p. 435).

Section III. Content

Extent of the problem

We believe that heart disease is a significant risk factor in Akron for several reasons. Just simply driving through Akron will show someone that the overwhelming amounts of fast-food restaurants can make it difficult for one to adhere to a heart-healthy diet. Economic conditions do not make it any easier. The citizens of Akron are forced to cut back and save as much money as possible. In doing this, a lot of them cannot afford healthy foods and/or do not have the resources or knowledge to eat healthy on a limited income. Physical inactivity is also a problem. Just like in a good number of other communities, people are watching more television, playing on the computer, and playing more video games than they are spending time working out, being outside (weather permitting), and staying active. These factors all play into poor health, which in turn causes health risks such as high cholesterol and high blood pressure. High cholesterol and high blood pressure can then cause heart disease.

Significant Statistics

In 2008, the population of Akron had 3961 deaths from heart disease, which is 1.9% of the population. Summit County had 17,284 deaths from heart disease in the same year, which is 3.1% of the population. This is significantly higher than the population of Ohio, who had a 0.22% rate of death from heart disease in 2008.

In Summit County from 2004 to 2006, heart disease was the number one cause of death (Healthy ohio community profiles, 2008). There are many risk factors that can contribute to heart disease, several of which have a high prevalence in Summit County. In 2004, 2006, and 2007 39.5% of Summit Country residents reported being told at least once that they had high cholesterol (Healthy ohio community profiles, 2008). This can be compared to the whole population of Ohio, with a lower prevalence of 37.9% of residents reported being told they had high cholesterol (Healthy ohio community profiles, 2008). High blood pressure is another factor that can contribute to heart disease in adults. 30.9% of Summit County residents have been told that they have high blood pressure whereas only 27.6% of Ohio residents have been told the same thing.

Race can be a contributing factor to the rates of high blood pressure. The American Heart Association states that 40% of African Americans have high blood pressure or hypertension (High blood pressure and african americans, 2012). Summit County has a higher prevalence of African Americans at 14.4% compared to all of Ohio, which is 12.2% (Resident Population: Black Alone, 2010).

Financial difficulties are also a problem as well. 18.4% of Akron's population is below the poverty line, with a median income of \$34,926. In Summit County the percent below poverty is only 10% with a median income of \$47,926 and in all of Ohio it is only 7.8%, with a median income of \$47,538. This can lead to adults not being able to afford health insurance as

well. In Summit County, 12.7% of adults are uninsured, while Ohio is a little bit lower at 12.5% of adults who are uninsured (Retrieved from

<http://quickfacts.census.gov/qfd/states/39/3901000.html>).

Interview #1: Renee DiMeo, MSN, BSN, RN, Akron General Medical Center

- What barriers do you find with patients meeting heart health goals?
 - The main barriers I see with patients meeting their heart health goals are a lack of knowledge, compliance, motivation, and finances. Lack of knowledge on medications, risk factors and importance of medical follow-up. Poor financial status today is becoming more prevalent than ever. People do not stay on their medications usually because they cannot afford them. Some people know what they have to do to improve their heart health but lack the motivation to act on their behavior. Many patients often know how they should eat and to exercise but just 'don't want to.
- What is working with your patients in regards to heart health?
 - We have an excellent outpatient cardiopulmonary rehabilitation program that helps patients in the above-mentioned areas. With proper guidance and ongoing reinforcement patients are more successful at reaching their heart health goals. The outpatient program involves monitored exercise 3 times a week for 12 weeks and attending educational classes that reinforce risk factor modification and lifestyle changes. In addition, they can meet one on one with the dietitian, and if needed a social worker. In most cases the program is covered in part by insurance companies.
- Is there anything you would like to do that you are can't to improve heart health?

- There needs to be more and more public education on heart disease. Primary care physicians also need to get more involved with identifying high-risk patients.
- Any other interesting perceptions or experiences on dealing with heart health of your patients that you could add?
 - Coronary heart disease is a disease that does NOT go away. Many patients think that because they have heart surgery or a stent that everything is new.....the disease never goes away and that's why lifestyle modifications are crucial. Physician follow up and compliance with meds, diet and exercise are huge!

c. Identify barriers and resources available, related to problem selected.

There are numerous barriers to the members of the community of Akron. For instance, high obesity rates, low income status, numerous fast food chains, and nutrition health related issues cause various barriers to achieve a healthy lifestyle and promote cardiovascular health. According to Renee' DiMeo, an RN at Akron General Hospital, finance, compliance, and knowledge deficit are the largest barriers in the Akron area.

Low income status may be the biggest barrier. Low income may cause the population to sway from seeking help for cardiovascular related problems. Also, the population may go for help and then not purchase the medications due to the high costs of many medications. This drastically decreases outpatient compliance. Low income may also discourage the population from seeking cardiovascular help through stress management or exercise. Many of these programs do implement entrance or maintenance fees. Also, low income patients may not have the transportation to seek healthcare providers.

High obesity rates may increase the risks related to cardiovascular disease. Numerous food chains also correlate with the high obesity rates. Fast food chains are quick, easy, and cheap. This may cause the population to utilize them rather than healthier food options. The various barriers affect the population of Akron in a negative way and interfere with promoting cardiovascular health and living a healthy lifestyle in general.

Although the population does have a lengthy amount of barriers, there are just as many resources. Akron is a large area that has various resources for almost every barrier. In regards to finances, there are various private and public insurers available for assistance with medications, in and out patient coverage, and doctor's visits. However, most of these services require that specific criteria be met before receiving financial assistance. There are numerous medical care services available in Akron. For instance, Akron Children's Hospital, Akron City Hospital, Akron General Medical Center, Open M Free Clinic, VA Clinic, and Nursing Center for Community Health are just a few of the medical centers in Akron. Most of these facilities are available through public transit. Akron also offers adequate low income assistance via food stamps, WIC, school lunch program, geriatric nutrition centers, and mobile meals. There are two natural/health food stores in Akron.

d. Describe accessibility and utilization of resources relative to problem.

According to Renee' DiMeo, Akron General's Cardiopulmonary Rehabilitation offers helpful outpatient assistance that helps patient's meet their goals and stay on the right track. It is a monitored exercise program in which the patient's receive education classes on risk factor modifications. It is three times a week and last for 12 weeks and is partially covered by most insurances. This program helps motivate patients while increasing their physical, mental, and social health.

As mentioned prior, Akron has numerous medical centers that are available through public transit. The Metro RTA can be accessed almost all throughout Akron and runs about 21 hours a day. Since it runs throughout the city, it is easy for the community to see the services available, visit the website, or call. Akron also provides a Metro SCAT for citizens 62 years or older. This transportation allows those without vehicles to attend their doctor's appointments, pick up medications, go to recreation centers, or go to the natural/health food stores for groceries.

The Mustard Seed Market & Café is a natural food store located in Akron. The market & care are open 7 days a week. The market offers classes regarding healthy eating options and, also, a cookbook with healthy recipes. The store has grown drastically since opening. This indicates that many people shop or eat there. However, it is expensive and this may discourage many Akron residents from buying heart healthy foods.

There are also prescription assistance programs such as Executive MED (1-888-456-3932), C6 MedAssist, or Ohio's Best Rx. These programs offer prescription discount cards and diabetic supplies. This will assist those with low income to pay for prescriptions or supplies. Although Akron offers many services and resources to the community, many members do not utilize them. This is evident due to the high risk of heart disease in Akron.

Recommendations for Action

The group discussed many ideas as to how to best carry out an intervention for the community of Akron. After much debate, it was decided to focus the intervention on the community's heart health as it was discovered using the community assessment tool that there was a need for decreasing the risk of heart disease in the Akron community. The group discussed the ways in which the community could become better educated on the concept of heart health and the best ways to provide information on the subject. Using a primary prevention approach to promote and maximize health and wellness in the community before injury or illness occurs, the group focused its attention on providing the Akron community with information and

education on cardiovascular health, nutrition, exercise, stress management, and fitness (Harkness & DeMarco, 2012). A secondary prevention approach was also put into place in order to maximize health and wellness at the early and chronic stages of illness or injury and minimize their impacts by performing free blood pressure and heart rate screenings in order to identify risk factors for cardiac disease along with provide information and education about these risk factors (Harkness & DeMarco, 2010).

As the downtown area in Akron is the heart of the city, the group decided to contact the Main Branch of the Akron-Summit County Library system located at 60 South High Street in order to seek permission to set up tables for the heart health fair. The group felt that this location would be easily accessible to the community as it was centrally located as it is surrounded by businesses, private residences, homeless shelters, and educational facilities. It would also provide us with a built-in audience as the library welcomes daily patrons from which to recruit to attend our health fair.

The first idea for an intervention discussed by the group was to provide the community with free blood pressuring and heart rate screenings. The group wanted to take turns performing these assessments which would include writing the results down on a notecard. The notecard was then to be given to each community member to keep for their own personal records. These screening results would be discussed with each individual along with an explanation provided about the dangers of high blood pressure and where to seek treatment for hypertension that has been identified via screening. By providing community members with this information, the group felt the community would be made aware of potential risk factors for heart disease related to elevated blood pressure and heart rates. Along with the free screening, the Akron community would be provided with education and information about cardiovascular health. The group

decided to create and display a trifold poster board which would include information about blood pressure, normal and abnormal findings, the definition of hypertension, risk factors of hypertension, and a detailed anatomy of the heart in order to better educate the Akron community about the heart, how it works, and how to identify when the heart is at risk. In addition to the poster board, 2012 Akron Street Cards from the Summit County Health Department would be made available to the Akron community to take home which list all of the resources that are available to community residents for free or at a low cost.

The second intervention idea that the group decided upon was to set up a table which promoted healthy eating habits that are beneficial to heart health. Once again, the group agreed to create a trifold poster board which would provide the Akron community with information including five steps to a healthy diet, information about cholesterol, healthier cooking options, and examples of appropriate serving sizes. An example of the new nutrition plate would be drawn on the board for people to view as this new plate was created to replace the nutrition pyramid in order to provide a more visual example on what should be consumed on a daily basis. “The new system is designed to help Americans chose the ratio of food groups in their meals in order to have a healthy diet, get the right nutrition, and not be so obese (Popken, 2011). In addition the poster board, low-fat cook books would be made available to the public to browse through for new recipe ideas. Fliers detailing heart healthy diet options, such as the DASH and Mediterranean diet, as well as fliers that will provide the community with healthy and cost cutting shopping tips and inexpensive food suggestions would be created and handed out. It was decided that these would be especially helpful and educational for those in the community living on social security and fixed incomes. The goal would be to inform the community about the

healthy and low-cost options available to them as an alternative to patronizing the fast-food establishments so abundantly found in the city of Akron.

Thirdly, the group decided to have an intervention table that focused on the topic of exercise and fitness. At this table, a trifold poster board would provide the community with information about local gyms and membership fees, inexpensive or free fitness and exercise options, describe the benefits of exercise, offer tips on how to safely begin a fitness regimen, and provide details on how often, how long, and when to discontinue exercise. The main idea was going to focus on how fitness and exercise are beneficial to heart and mental health. As a reminder to the community to make heart healthy decisions, free heart-themed pencils and bookmarks will be made available to take home as souvenirs.

The last intervention that the group decided upon was to set up a stress management table. This table would focus on providing information about stress and how to manage it. A trifold poster board would be created which would explain what stress is, its signs and symptoms, the negative impacts of stress, stress management techniques, and the health benefits of managing stress. In addition, fliers would be created which would reflect the information provided on the poster board that community residents could take home with them and read. A flier would also be created detailing the technique of deep breathing to better educate people on how to perform deep breathing as a way to relieve stress. While visiting this table, community residents would listen to the relaxing sounds of rain, thunderstorms, and ocean waves being played on a computer and would receive information on how listening to these types of soothing sounds could help in the management of stress. Also, a deep breathing demonstration would be given if requested to display this technique properly. Finally, stress relieving balls

made out of balloons and sand would be given out freely to anyone who would like to have one in order to squeeze away any stress that they may be feeling at any time.

All of the intervention ideas decided upon by the group focused on prevention and education. For this reason, in addition to providing information and education at each of the tables, the group members would also be available at each table to listen and answer any questions or discuss any concerns that visitors to the health fair may have for them. The goal of the group was to improve heart health in the City of Akron through screening for high blood pressure and elevated heart rates and providing education and information about the cardiovascular system, fitness and exercise, good nutrition, and the management of stress. The group felt that by focusing on these particular areas, the community of Akron would become more informed, better educated, and more motivated to prevent heart disease.

The role that the community health nurse plays in the City of Akron is a very important one. By reaching out into the community, the community health nurse is able to provide services to citizens who may not otherwise receive the information, education, and care that is traditionally given to the well-insured and well-educated population. “Every day, community nursing teams deliver evidence-based practice and use their expertise to oversee complex care pathways” (Bowers, 2009, p. 1010). The community health nurse is equipped to deliver care to individuals, families, and community groups in the City of Akron with a focus on promoting, preserving, protecting, and maintaining health (Harkness & DeMarco, 2012). The community health nurse has the ability to reach out to the Akron community by visiting people’s places of employment, their homes, their schools, and their surroundings in an effort to take care of the population as a whole. The primary focus of a community health nurse is education and

prevention (Lancaster & Stanhope, 2006). Therefore, the community health nurse is not only a resource to the community as a whole; he/she is instrumental as a resource to the individual.

It is also important to note that the role of the community health nurse is to evaluate health trends and risk factors within the community that he or she is serving in order to help identify any issues within the community and determine interventions that may be necessary to help promote, preserve, protect, and maintain health. The nurse should also be an advocate and voice for the community (Lancaster & Stanhope, 2006). For all of these reasons, it is easy to understand what an asset the community health nurse is to the City of Akron and the impact he or she has on the community served.

Implementation of Recommendations

Describe the Implemented Intervention

The clinical group held a Health Fair located in the Akron public library on High St. in Downtown Akron, Ohio. Organizations all over have used health fairs in underserved communities to promote awareness, offer screenings, and distribute health education in an effort to decrease health disparities (Baig, Mangione, Sorrell-Thompson, & Miranda, 2010, p. 701). The Health Fair consisted of four educational stations that provided information to promote cardiovascular health maintenance among the community of Akron. Health maintenance was a major focus of the community because of the prevalence of diabetes mellitus, heart disease, high unemployment rate, obesity, poverty levels, and the amount of fast-food restaurants. The four stations incorporated education on physiological factors, stress management, exercise, and nutrition.

The first educational station provided citizens with information about physiological factors. After students obtained blood pressure from the citizens of Akron, several students

explained the importance to maintain a healthy range while keeping heart disease under control. Information included causes, incidences, and risk factors, signs and symptoms, treatments, support groups, expectations, complications, preventions, and when to call your health care provider.

The second station provided and promoted the plate method for proper portion sizing, which replaced the food pyramid in May 2011. The students at this station included patient education about reading food labels properly, the average amount of calories one should consume throughout the day, healthy menus consisting of meals for breakfast, lunch, and dinner, low sodium products versus high sodium products, and how to incorporate more whole grains and fewer fats. Students at this station provided the members of the community with a packet of information including a list of healthy foods that cost less than a dollar per serving, a hand out on food labels and how to read them and seven days of recipes following the DASH diet..

Another station encouraged exercise. At this station, students educated citizens about the benefits of exercise. Students also informed citizens about the Metro parks and other local gyms. Students passed surveys to assess the frequency of exercise the type of exercise, and the duration. The students at this station were often found educating the citizens of ways to increase activity on an individual basis.

The last station was ways to reduce stress. The Students created a poster that educated the citizens about the impact stress has throughout the body as well as ways to reduce stress. They also provide an example by playing calming music. At this station they also passed out stress balls as an outlet to reduce stress.

Describe the Measurable and Non-Measurable Outcome(s) of Selected Interventions

Outcomes are the measurable or non-measurable results of the implemented interventions. To measure the interventions the students utilized the survey and tally approach. With this information the group was able to determine how many people attended, what the people liked about their experience, and to see if there were younger people or older people who attended. The group suspected that there would be more of an older clientele that would attend the Health Fair.

The students kept tally of how many people overall came to the Health Expo, further dividing it down to how many males, females, and children were present. There were 31 visitors overall, 62% of them being male, 35% female, and 3% children. The students suspected that more men than women would have showed up to our Health Fair and were correct in this assumption. The Library is located adjacent to one of the largest homeless shelters in the area and the vast majority of its population is males.

The nursing students incorporated a survey for the citizens to take part in at the end of the experience. This survey included topics such as: rating their experience, rating the information they received, if they would recommend the presentation, if they were male or female, and their age range. We also had three comment questions on what they liked best about their experience, if they would change anything about the presentation, and an additional comments section. One downfall of the survey is that we were unable to get all 31 visitors to partake. We had a total of 22 surveys completed, which was 70% of the total visitors at the expo.

Of the 22 surveys, 68% of the participants were male and 32% were female. There were no participants that were under the age of 18, 4.5% between the ages of 18-24, 9.0% between 25-34 and 31.8% between 35-44, 27.2% between 45-54, 13.6% between 55-64, and 13.6% of them being 65 years or older. The results for the content of the Health Expo include: 0% of people

rated their experience as very dissatisfied, dissatisfied. 4.5% rated their experience as neutral, 13.6% rated their experience as satisfied, and 81.8% rated their experience as very satisfied. All of the citizens rated the information they received as useful. All of the participants of the survey said that they would recommend the presentation to others.

Other measurable outcomes included what the visitors of our Health Fair had said about it. “We learned a lot,” “good information,” “very informative,” “good knowledge base,” “polite,” and “well-organized.” Other comments that were stated from the survey include: “Thank You!” and “Very Informative”.

There were a few items the students found to be non-measurable. However, now this group of nursing students knows what can be changed if the group were to have another Health Expo and be able to measure the non-measurable topics. One non-measurable outcome was that the group did not exactly know how many people visited each table at the expo. We attempted to keep track of how many people visited each station with the tally method; however, each student would get busy helping out other stations or be too engaged with the clients to keep track. It was difficult to be able to keep track at times when it got busy. It would have been good to know how many people visited each table because then it could be determined which table was more popular or less likely to visit. Students could use this information for future use in tailoring some interventions and changing the content around to be more beneficial. Overall, it appeared that most of the tables were visited equally with the exception of the blood pressure station being the most popular. It was found that some people only came to get their blood pressure taken.

Lastly, the students could not measure how many citizens of Akron actually knew about the Health Fair. The students did have the public broadcasting to the group’s advantage, but if

the clinical group would have done more, such as posting flyers around the community, maybe there could have been a larger outcome for the fair. This is one intervention that can be implemented for future use and be more aware of the community as a whole.

Impact on the Community

Overall, the group found the Health Fair to be a success. The students informed and educated citizens of the community in an organized, knowledgeable way. The citizens were able to take what they learned from the Health Fair home and apply it to everyday life. They were eager to take home recipes, shopping tips, and daily menus and recipes to incorporate not only in their daily activities. One important education aspect of the intervention was the blood pressure screenings and heart health. Some of the people came up with excuses for why their blood pressure was high. It was stressed to the citizens the importance to take their blood pressure on a regular basis, take medications as prescribed, refill medications on time, and incorporate a healthy diet. Some of the citizens thought they only had to take their medicine to control their blood pressure, when in fact many other lifestyle changes have to occur as well.

Much of the information provided related to health awareness and health promotion, which was the goal from the start. It seemed as if the Kent State nursing students had a positive impact on the community; people wanted to come to the Health Fair and thoroughly enjoyed themselves. Out of the entire community of Akron, less than 1% of the population showed up. If we were to do this Health Fair again, we should try to reach out to more of the community by posting flyers around the community, especially at local hotspots.

Conclusion

The intervention implemented within the Akron community should be continued in the future due to the need for knowledge of healthy nutrition as evidenced by the prevalence of

obesity, heart disease, diabetes mellitus, stroke, poverty levels, high unemployment rate, and the amount of fast-food restaurants throughout the community. Nutrition has become a main focus in health promotion and cardiac impact due to traditional food habits constantly changing in the last few decades. Obesity has become a primary concern from a combination of food choices and sedentary life styles across America (Aranceta, 2003). The residents of Akron who came to the Health Expo stated in the intervention evaluations that they enjoyed the program, most found it to be beneficial. Comments were written about the welcoming friendly environment and the educational information provided was useful to their lifestyles. The group was more than pleased with the outcome of the intervention and would be willing if able to continue the health program within the community. Even though future evaluation of the intervention is not an option, the students feel grateful to have impacted the citizens of this community by providing helpful healthy information.

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