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Community of Interest Assessment Final Report

Obesity in Elderly North Carolinians

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Identification of the Problem

Morbid obesity is an epidemic that is steadily on the rise in America. A particular community of interest affected by this growing trend is the elderly population aged 65 years and older in North Carolina. According to the Centers for Disease Control and Prevention the rate of obesity in North Carolina is now 28% with the rate in the elderly population at 23%. According to Arterburn (2004), "The prevalence of obesity in elderly Americans will likely continue to increase, challenging healthcare delivery and financing systems in the United States" (p. 1907).

Obesity in the elderly is shown to cause an increase in health care costs, decrease in functional ability, and increase in risk for comorbid health problems. According to Davilgus (2005), the states of being "overweight and obese are recognized as major risk factors for heart disease, hypertension, dyslipidemia, certain cancers, other disorders, higher long-term mortality from cardiovascular diseases and all causes, and impairments in current and future physical functioning and quality of life" (p. 97). Obesity in the elderly also causes decreased functional ability and frailty. Frailty is a type of adult failure to thrive related to decreased functional mobility, homebound state, and degenerative joint destruction related to obesity. These effects of obesity on a person's state of health place a financial burden on the healthcare system. Obese Medicare patients spend on average $1,486 more per year on healthcare. (Jensen, 2005, p. 684) The causes of obesity in the elderly are multifactorial including: decreased functional ability as a person ages, poorer nutritional status, decreased metabolic needs and comorbid medical problems.

North Carolina's obesity rate is 28% compared to the national average of 27% in the United States. Particularly, the elderly population is affected by this growing trend in North Carolina with an obesity rate of 23 % which is comparable to the national average of almost 23%. Since obesity in the elderly is related to decreased functional ability, increased risk for comorbid health problems and worsened mortality rates a solution for this growing problem needs to be found.

A way to tackle this mounting problem is to combine efforts between acute care and community resources. Educational, nutritional, and lifestyle changes are all needed to fight this epidemic with educational initiatives at the top of the priorities. A holistic approach towards combating obesity is needed to improve the nutritional, lifestyle, and exercise practices in the elderly.

Assessment of the Community

North Carolina is known for its southern hospitality and items such as sweet tea, hog jowls, fried pickles, and boiled peanuts. Only 24% of the North Carolina elderly population reported eating 5 or more fruits or vegetables a day, 11% reported vigorous physical activity 3 times or more a week, and 33% reported fair or poor health. Furthermore approximately 12% of North Carolina's population is over age 65, and 23% of these elderly residents are obese. (Buescher, 2008, p. 413) According to Buescher (2008) in the State Center for Health Statistics, "In 2006, there were nearly 360,000 inpatient hospitalizations of North Carolinians aged 65 and older, representing 37% of all hospitalizations in the state and resulting in hospital charges of $7.9 billion" (p. 413).

The literature has shown that the incidence of cardiovascular disease, diabetes, hypertension and osteoarthritis raises as the body mass index (BMI) rises. According to the Henry J. Kaiser Foundation, the incidence of diabetes in North Carolina is 10% (Kaiser, 2008). The State Center for Health Statistics notes that the incidence of diabetes in the elderly in North Carolina is 21%. (Buescher, 2008, p. 413) According to Carter (2006), "Body mass index as a measure of adiposity is positively associated with increased mortality and clear associations exist between obesity (BMI ≥ 30kg/m2) and hypertension, dyslipidemia, and Type 2 diabetes among other chronic conditions" (p. 241).

Catawba Valley Medical Center, located in Western North Carolina, cares for a large percentage of the local community hospitalized elderly population. The average BMI of the hospitalized elderly patient is on the rise with the highest BMI's at greater than 60.

Community Analysis

Resources at Catawba Valley Medical Center include a number of licensed dieticians who specialize in diabetic education, obesity, weight loss strategies and elderly nutrition care. Specially educated and certified nursing staff serves as diabetic educators. Several multidisciplinary teams including physical and occupational therapies, social workers, case managers and nursing provide geriatric care now tailored for the obese population.

Outpatient resources include local community centers such as the Health First Center in the Valley Hills Mall. This center provides a number of services geared toward the elderly population including a free membership program that provides discounts on prescriptions, health screenings, and hospital programs as well as educational seminars. Cooking and nutritional classes are also offered and an exercise program called "mall-walkers" is available

and promotes camaraderie and increased activity levels. Other community resources include diabetic educational programs, meals on wheels, cardiac rehabilitation and home health services including physical and occupational therapies and nursing services. A careful unification of these two major resources is necessary to improve functional ability in deconditioned hospitalized patients and reduce body mass index improving overall health status.

A likely barrier to this is a lack of financial resources to provide these services to all who need them. Another hindering factor is the number of homebound obese elderly patients who are unable to easily access these services.

Proposal Design

The Healthy Seniors Project is a proposed solution to the obesity epidemic in the North Carolina elderly population. The goals of the project are to provide awareness of the problem and educate the population on lifestyle changes necessary to improve health status. The objectives are to improve nutritional status, increase activity levels, and improve overall functional abilities in order to ultimately decrease body mass index. These objectives will be achieved through educational endeavors to promote healthy eating choices, decreased calorie intake, and increased intake of fruits and vegetables. Exercise programs will be expanded in the community setting to include special activities for functionally impaired seniors. Aggressive physical and occupational therapies will be provided to improve activities of daily living and functional ability.

To achieve these objectives, activities such as identification of the population and the collection of demographic data needs to occur first. This can be done through examining the

people in current community programs and the local clinics who routinely care for them. Home health nursing staff can also obtain demographic information from the homebound and frailer elderly population. This information can then be used to tailor programs for specific regions of Catawba County in Western North Carolina. The next step would be to inform this population of the Healthy Seniors Project through community fliers, television and radio advertisements, and clinic pamphlets. A multidisciplinary team would need to be formed including medical providers, advanced practice nurses, occupational and physical therapists, nursing, and other allied health professionals. A big portion of the project is education. Each member of the team can provide education specific to their area of expertise. This educational material can be compiled into different media such as audiovisual material, paper material and personal training programs. The Healthy Seniors project is an extension of the existing acute care and community resources to support healthy lifestyles of the elderly. The project is intended to better organize the efforts of health promotion and track the health of this community.

Resources necessary to make this project a success are both community based and acute care based. Often elderly obese people require hospitalization related to their comorbid health conditions. This is where access would begin for the more vulnerable population. In the hospital a multidisciplinary team exists to provide the initial health education and promotion with advanced practices nurses leading the team. Community resources such as the Health First Center in the mall and local home health agencies are also important resources to make this project a success by meeting the person where he is and empowering him in his own health care. Local community clinics who serve this population are the next key resource with advanced practice nurses initiating the use of this program.

The Medicare program would be the main source of funding as this project is geared towards the elderly population. Since this type of health project is primarily focused on health promotion and disease prevention Medicare reimbursement may be an issue. This type of project however promotes healthy lifestyle choices including education on nutrition and exercise habits and should be a part of every clinician's routine during a usual business day. Additional services such as nutritionists' counseling and occupational and physical therapies may require special documentation on the part of the clinician to justify reimbursement from Medicare. Another source of funding could be the Aetna Foundation. This foundation has awarded grants for healthy community projects, awarding 1.88 million dollars in 2007 for diabetes and obesity related programs.

The timeframe for accomplishing each component is difficult to estimate and may change as the project unfolds. It may take as long as two months to establish who the community of interest is and collect the appropriate demographic date. While this data collection is occurring the initial information process can begin by posting pamphlets in community areas and local clinics. Once the population is established then television and radio advertisements can be aired. The next step would be to implement the project. Over the next three to six months careful examination and evaluation of the effectiveness of the project would need to occur. Ways to measure effectiveness would be to trend the BMI and functional activity levels of the seniors involved over the next year. Other indicators of effectiveness are to evaluate the lifestyle choices the people are making including nutritional and exercise choices.

Barriers and facilitators

Barriers to accomplishing the goals are difficulty obtaining reimbursement from Medicare for health promotion as opposed to disease and illness treatment and lack of team members to meet the growing demand of this population. Another barrier is access to the program. As this population ages and the obesity worsens often comorbid health problems decrease their functional abilities and increase their frailty making it difficult to get out of the house. Ways to combat this are to utilize home health therapies and advanced practice nurses in the home to improve functional ability by promoting healthy lifestyles. Facilitators are those members of the multidisciplinary team committed to improving the health of the community particularly the obese elderly. Legislators are the key to change the way medical service reimbursement is geared towards treating illnesses and diseases as opposed to promoting health and disease prevention.

Role of the Doctor of Nursing Practice

According to the American Association of Colleges of Nurses (AACN) the role of the Doctor of Nursing Practice (DNP) is to assist individuals in health promotion, disease prevention and provide access to populations at risk for health disparities. (AACN, 2004, p. 3). The DNP degree specifically prepares the advanced practice nurse to provide complex, holistic care to individuals across the health care spectrum. A doctoral prepared nurse accomplishes this through dynamicity. According the AACN (2004), “Transforming health care delivery recognizes the critical need for clinicians to design, evaluate, and continuously improve the context within which care is delivered” (p. 3). The role of the DNP is critical to this project as continual assessment, evaluation and adaptation is important in making this project a success. According

to the National Panel for Nurse Practitioner Practice Doctorate Competencies (2006) a DNP degree prepares nurse practitioners to “assume increasingly complex leadership roles and provide leadership to foster interprofessional collaboration” (p. 2). This advanced education in the leadership arena allows the DNP prepared nurse practitioner to be at the forefront of the multidisciplinary collaboration necessary to make this project a success.

For this project to be a success there needs to be utilization of both acute care and community resources. According to Villareal (2006), even “moderate weight loss and exercise training improves both objective and subjective measures of physical function and ameliorates frailty in obese older adults. Therefore, diet and exercise should be considered as primary therapy in frail obese older adults” (p. 865).

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