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Pink Goes Red for a Day: Is Your Heart Healthy?

An Honors Thesis submitted in partial fulfillment of the requirements for Honors in *the College of Health and Human Sciences School of Nursing.*

By

Quierra Winter Jones

Under the mentorship of *Dr. Ellen Hamilton*

Abstract

There is a major lack of public health education among college aged students at many colleges and universities across the country. Even further, many minority college students are unfamiliar with one of the most life-threatening health issues that affect them the most: heart health. As a nursing student and member of Alpha Kappa Alpha Sorority Inc., I strive to uphold our “service to all mankind” motto and also educate the public about important heart health matters. On February 4, 2014, I presented a program through my sorority entitled Pink Goes Red for a Day in which I educated the primarily minority college student population attending about heart health. My research question was, “Do minority college students have a general understanding of what it means to truly have a healthy heart?” My sample size included 50 minority students. I used a self-made survey containing questions that would reflect the content of the program as the basis of my research. The results of my study showed that the many minority college students at Georgia Southern University do show a need for improved public health education, although not as strongly as previously thought. My program was effective as evidenced by increased post-quiz scores.

Thesis Mentor: _____

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Rationale

As a nursing student, I am passionate about many aspects of health, primarily prevention. I am a very strong advocate for preventative medicine, and I fully believe that it is a duty of mine to educate the community about public health matters. I am also a member of Alpha Kappa Alpha Sorority Incorporated, the first historically African-American sorority which was founded in 1908, and also primarily stands for service to all mankind. This motto combined with my love of preventative medicine led me to host my sorority's annual nationwide program: Pink Goes Red for a Day. This program occurs in February of each year and serves the primary focus of educating the public about heart health. The sorority's colors are salmon pink and apple green, which is where the significance of the name of the event originates. Every chapter of Alpha Kappa Alpha at every university in every state in the country participates in this event every year; however, each does so in its own way. As an African-American nursing student and as a member of a historically African-American organization, I understand the impact that heart health education can have on the African-American community because this particular race is highly affected by heart health issues. This year, I chaired the event at Georgia Southern University in order to complete my Honors Thesis Capstone Project and had an incredible turnout.

Introduction and Background

This project will address heart health through the collaborative annual event done with my sorority, Alpha Kappa Alpha Sorority Incorporated, called Pink Goes Red for a Day. Help will be elicited from the Georgia Southern University senior nursing class.

Because it is my opinion that the vast majority of college students are not familiar with health matters that are considered to be common knowledge to healthcare providers, the selected aggregate was minority college students, and my research question was, “Do minority college students have a general understanding of what it means to truly have a healthy heart?”

Some existing research on this topic explains that there is a need for better promotion of student health on many college campuses because many students believe incorrect information about heart health (Munoz et al, 2010). Other research shows that there is, “incongruence between college students' perceived disease risk and disease prevalence rates, and this calls for improved public health education.” (Smith, Dickerson, Sosa, McKyer, & Ory, 2012, pg 205)

Purpose

The purpose of this study is to educate the minority college student population at Georgia Southern University about important heart health issues. My hypotheses are as follows:

1. When quizzed, more than 70% of the minority student population attending the Pink Goes Red for a Day event will answer all 15 questions incorrectly, indicating a lack of knowledge about heart health issues.
2. Following the conclusion of the Pink Goes Red for a Day program, the minority student population attending will have a better understanding of their heart health as evidenced by more than 70% answering all 15 questions correctly.

Significance

To gather preliminary data about the selected aggregate, a windshield survey of Georgia Southern University was conducted. A windshield survey is defined as a motorized version of a simple observation by driving within a set area and collecting subjective and objective information in order to help define the community's health (Stanhope & Lancaster, 2014, p. 409). The first windshield survey was conducted in early January during the planning stages of Pink Goes Red for a Day. It was noticed that there is a small population of African-American students at Georgia Southern University, approximately 20% of the total enrollment, but that this community is very tight-knit. Many of the African-American students at Georgia Southern are leaders of various organizations on campus such as the Student Government Association, Student Nurses' Association, NAACP, and many more. Despite the education of these students, many of them are not educated in one of the main killers of African-Americans—cardiovascular disease.

This study will show that there is a need for increased public health education, primarily targeting minority college student populations. This population is considered vulnerable, and will benefit most from focused education. African-Americans are at the highest risk for heart health problems and college students naturally have a lower income; therefore, they may not be able to afford adequate healthcare while in college. They need to become familiar with the basic symptoms for heart health problems.

Review of Literature

Smith, M., Dickerson, J. B., Sosa, E. T., McKyer, E. J., & Ory, M. G. (2012). College Students' Perceived Disease Risk versus Actual Prevalence Rates. *American Journal Of Health Behavior*, 36(1), 96-106. Reviewed by Quierra Jones.

The purpose of the article, "College students' perceived disease risk versus actual prevalence rates," was to compare the perceived disease risk of college students with the actual disease prevalence rates. The researchers hypothesized that college students would have an inaccurate perception of their own disease risks.

625 college students were sent an Internet-based survey that compared student's perceived 10 year and lifetime disease risk for heart disease, cancer, diabetes, and obesity. The results showed that the surveyed college students estimated their risk of developing heart disease as lower than cancer, but higher than diabetes and obesity. The overall conclusion of this article is that there is an extreme need for improved public health education. Many people, particularly those college-aged, have inaccurate perceptions about many disease risks. It is important that educated healthcare professionals educate the public so that these things may become common knowledge.

Overall, I would rate this article as 8 out of 10. The sample size was very large which provided a variety of data, and the article was well-written and easy to understand. The fact that the survey was internet-based could have provided some skew to the data as it was optional to respond. The article was very enlightening and helped to prove that there is indeed a need for more public health education.

Munoz, L., Etnyre, A., Adams, M., Herbers, S., Witte, A., Horlen, C. ...& Jones, M.

(2010). Awareness of Heart Disease Among Female College Students. *Journal of Women's Health, 19*(12). <http://dx.doi.org/10.1089/jwh.2009.1635>. Reviewed by Quierra Jones.

The purpose of the article, "Awareness of heart disease among female college students," was to evaluate the level of awareness and knowledge of heart disease in women among college students. The researchers hypothesized that although awareness of heart disease as the leading cause of death in women has increased over the past 10 years, college-aged women are unaware.

320 women from a private university were given a survey assessing their awareness of cardiovascular disease. The results showed that nearly one third of those surveyed believed breast cancer was the greatest health problem facing women, and one half recognized cardiovascular disease as the leading cause of death among women. Students that were between 18-24 years old were much less likely to identify that heart disease was the leading cause of death in women, while those between 25-34 years were more likely. There were significant ethnic differences in the perceptions of risk. The majority of information concerning this matter was gained from television, the internet, and magazines. Exercise and maintenance of healthy blood pressure were viewed as priorities in prevention of cardiovascular disease. The overall conclusion of this article was that there is a "need for intervention to increase awareness and knowledge of heart disease risk among younger and ethnically diverse young women." (Munoz et al, 2010,

pg. 82). The article also addressed the fact that universities may be the last opportunity the public has to reach this particular age group in order to affect healthy lifestyle changes.

Overall, I would rate this article as 8 out of 10. The sample size was fairly large, but it could have been larger to provide a better variety of data. The study also could have been extended out to other colleges and universities. The article was very clear to understand, and had an excellent basis for its research. The results of the study were very in depth and provided a wealth of information.

Theoretical Framework

This study uses Ralf Schwarzer's, who is a Professor of Psychology at the Free University of Berlin, Germany, theory of the health action process approach as the framework for my research. This theory states that, "the adoption, initiation, and maintenance of health behaviors must be explicitly conceived as a process that consists of at least a motivation phase and a volition phase. The latter might be further subdivided into a planning phase, action phase, and maintenance phase. It is claimed that perceived self-efficacy plays a crucial role at all stages along with other cognitions (Schwarzer, 2011, para. 1)." This theory explains how a person can make the resolve to change a certain type of behavior, such as smoking cigarettes, for the better. In order to correctly change a detrimental behavior, a person must first be educated as to how their previous behavior is a detriment to their health..

Definition of Concepts

For the purposes of this study, the pre-quiz is defined as the survey given out to participants of the Pink Goes Red for a Day program before the program began. The post-

quiz is defined as the survey given out to participants of the Pink Goes Red for a Day program after the program was completed. A minority student is defined as an African-American student. A college student is defined as a traditional college-aged student between the ages of 18-24 attending Georgia Southern University.

Methodology

The early planning stages of the project were very hectic. It was known that heart health education was needed, but how would that be accomplished. Should I teach about the four chambers of the heart? Should I teach about blood flow through the heart? Should I teach about heart disease? I didn't want this presentation to be an anatomy lecture. A different approach was decided on—people would be taught the basics about vital signs, what the numbers mean, and what's good or bad; and also taught about strokes and heart attacks and how to recognize each. The plan was also to implement an exercise routine to encourage participants to get the weekly recommended amount of exercise. Finally, it was decided to include a few inexpensive, heart-healthy recipes that would be perfect for any college student to prepare, and bring samples of each. All of the study objectives aligned with one of the objectives of Healthy People 2020, “to improve cardiovascular health and quality of life through prevention, detection, and treatment of risk factors for heart attack and stroke; early identification and treatment of heart attacks and strokes; and prevention of repeat cardiovascular events” (Healthy People 2020, 2013). The main focus in the teaching would be prevention and early identification. In order to evaluate whether or not the program was effective, a pre-quiz and a post-quiz were given to determine effectiveness. In order to answer the research question, a survey was formulated containing multiple choice questions such as, “what is a blood pressure”,

“what causes a heart attack”, and “what are some causes of plaque buildup?” The survey would be very similar to a quiz one might see in an anatomy class, but the purpose of the survey would be to analyze if the majority of the student population truly understands these physiological matters concerning the heart. Data were analyzed using IBM SPSS Statistics software, and will be presented at the Honors Research Symposium later this fall. The same survey was distributed at both the beginning and end of the program in order to determine if my teaching was effective.

In order to benefit the chosen aggregate, it was decided to educate participants on common heart health issues such as the meaning behind the numbers making up a blood pressure, and how to recognize whether or not someone has had a stroke or a heart attack. There were about 50 students present, most of whom were African-American females. The event took place in the Russell Union Ballroom from 7-8:30 pm on February 4, 2014.

The program conducted consisted of 4 different sessions—screening, heart teaching, exercise, and healthy eating. Participants were given a pre-quiz which contained questions about the information that would be presented during the program before any session began. For the cooking session, members of the sorority researched 3 short heart-healthy recipes. Samples of the heart healthy dishes were distributed, and as well as recipe cards in the form of a PowerPoint Presentation. For the exercise session, a RAC official led a 20 minute exercise routine consisting of Hip Hop Jam, one of the Group Fitness classes taught at the RAC. The education session consisted of a PowerPoint presentation containing information that answered the questions in the previously distributed survey. Finally, the screening session was done by a nursing students, and

participants had their blood pressures and pulses taken. At the end of the event, participants were given the post-quiz which was the same quiz they took at the beginning of the program. The entire event lasted about an hour and fifteen minutes.

Instrument Description

For the purposes of this research study, an original survey was formulated consisting of 15 multiple choice questions that would accurately reflect the information presented in my program. The questions were as follows:

1. Where is the heart located?
 - a. Middle of the chest
 - b. Slightly to the left of sternum
 - c. Slightly to the right of sternum
 - d. I don't know
2. The heart is a...
 - a. Tendon
 - b. Muscle
 - c. Ligament
 - d. I don't know
3. What is the average pulse rate?
 - a. 60-100 beats per minute
 - b. 10-50 beats per minute
 - c. 120-160 beats per minute
 - d. I don't know
4. What is a pulse?
 - a. How many times per minute you breathe
 - b. How many times per minute your heart beats
 - c. A number obtained from a blood pressure cuff that looks like this: 120/90
 - d. I don't know
5. What is the normal blood pressure range?
 - a. 60-100/12-20 mmHg
 - b. 12-20/60-90 mmHg
 - c. 120-140/60-90 mmHg
 - d. I don't know
6. What does blood pressure tell you?
 - a. How many times your heart beats per minute
 - b. With how much force your heart pumps blood through your blood vessels

- c. How strong your heart is
 - d. I don't know
7. How often should you exercise each week?
- a. 2 hours and 30 minutes a day
 - b. 2 hours and 30 minutes twice a week
 - c. 2 hours and 30 minutes a week
 - d. I don't know
8. Which of the following is a food low in cholesterol?
- a. Oatmeal
 - b. Pound cake
 - c. Egg yolks
 - d. I don't know
9. Which of the following ethnic groups are most prone to the development of heart disease?
- a. Caucasians
 - b. Hispanics
 - c. African-Americans
 - d. I don't know
10. Which of the following is a possible cause of a myocardial infarction?
- a. Eating foods low in cholesterol
 - b. Exercising too much
 - c. Plaque buildup in the blood vessels
 - d. All of the above
11. What is a myocardial infarction?
- a. Death of cardiac tissue damage to the heart
 - b. The medical term for a heart attack
 - c. Nerve
 - d. Both a and b
12. True or False: It is a good thing to have high cholesterol.
13. True or False: Being overweight is a risk factor for development of heart disease.
14. What is the MOST significant sign of a heart attack?
- a. Shortness of breath
 - b. Severe Chest pain
 - c. Nausea
 - d. Cold sweats
15. What is the nickname for a stroke?
- a. Brain attack
 - c. Heart attack

b. Clot attack

d. Lung attack

The survey asked questions related to demographics such as the age, gender, and major of participants, and had the purpose and directions listed at the top. Included was a statement notifying participants that their information would be kept confidential, thus improving honesty and reliability of respondents. A total of 50 pre-quizzes were distributed and returned, and 50 post-quizzes were distributed but only 40 were returned.

Data Analysis and Results

The data was analyzed using IBM SPSS Statistics 21. After collecting quizzes, the data from them was inserted into IBM SPSS Statistics 21 in order to evaluate the descriptive statistics. The participants of this study included 50 Georgia Southern University students, but only 40 pre and post quizzes were able to be used. The sample consisted of participants from all class levels. 14 participants were considered medical majors, 18 participants were considered non-medical majors, and 8 did not respond to this question. All students were within the ages of 18 and 22. There were 34 females present, 2 males, and 4 participants who did not respond. 31 students were African-American, and 9 did not respond to this question on the survey.

The first hypothesis which was, “When quizzed, more than 70% of the minority student population attending the Pink Goes Red for a Day event will answer all 15 questions incorrectly” was proven untrue. The majority of the population present at the event answered most, if not all, 15 questions correctly on the pre-quiz. The data are as follows:

Where is heart located

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid 2.00 | 37 | 92.5 | 92.5 | 92.5 |

| | | | | |
|-------|----|-------|-------|-------|
| 3.00 | 3 | 7.5 | 7.5 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

The heart is a

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid 2.00 | 38 | 95.0 | 97.4 | 97.4 |
| Valid 4.00 | 1 | 2.5 | 2.6 | 100.0 |
| Total | 39 | 97.5 | 100.0 | |
| Missing System | 1 | 2.5 | | |
| Total | 40 | 100.0 | | |

What is the average pulse rate

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid 1.00 | 20 | 50.0 | 54.1 | 54.1 |
| Valid 2.00 | 1 | 2.5 | 2.7 | 56.8 |
| Valid 3.00 | 15 | 37.5 | 40.5 | 97.3 |
| Valid 4.00 | 1 | 2.5 | 2.7 | 100.0 |
| Total | 37 | 92.5 | 100.0 | |
| Missing System | 3 | 7.5 | | |
| Total | 40 | 100.0 | | |

What is a pulse

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid 2.00 | 38 | 95.0 | 95.0 | 95.0 |
| Valid 3.00 | 1 | 2.5 | 2.5 | 97.5 |
| Valid 4.00 | 1 | 2.5 | 2.5 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

What is the normal blood pressure range

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| 1.00 | 3 | 7.5 | 7.5 | 7.5 |
| 2.00 | 2 | 5.0 | 5.0 | 12.5 |
| Valid 3.00 | 34 | 85.0 | 85.0 | 97.5 |
| 4.00 | 1 | 2.5 | 2.5 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

What does blood pressure tell you

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| 1.00 | 4 | 10.0 | 10.3 | 10.3 |
| 2.00 | 32 | 80.0 | 82.1 | 92.3 |
| Valid 3.00 | 1 | 2.5 | 2.6 | 94.9 |
| 4.00 | 2 | 5.0 | 5.1 | 100.0 |
| Total | 39 | 97.5 | 100.0 | |
| Missing System | 1 | 2.5 | | |
| Total | 40 | 100.0 | | |

How often should you exercise each week

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| 1.00 | 8 | 20.0 | 20.0 | 20.0 |
| Valid 2.00 | 17 | 42.5 | 42.5 | 62.5 |
| 3.00 | 15 | 37.5 | 37.5 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

Which of the following is a food low in cholesterol

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid 1.00 | 31 | 77.5 | 77.5 | 77.5 |
| 2.00 | 1 | 2.5 | 2.5 | 80.0 |

| | | | | |
|-------|----|-------|-------|-------|
| 3.00 | 5 | 12.5 | 12.5 | 92.5 |
| 4.00 | 3 | 7.5 | 7.5 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

Which of the following ethnic groups are most prone to the development of heart disease

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| 1.00 | 3 | 7.5 | 7.5 | 7.5 |
| Valid 3.00 | 35 | 87.5 | 87.5 | 95.0 |
| 4.00 | 2 | 5.0 | 5.0 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

Which of the following is a possible cause of a myocardial infarction

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| 1.00 | 2 | 5.0 | 5.0 | 5.0 |
| Valid 3.00 | 26 | 65.0 | 65.0 | 70.0 |
| 4.00 | 12 | 30.0 | 30.0 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

What is a myocardial infarction

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| 1.00 | 2 | 5.0 | 5.4 | 5.4 |
| 2.00 | 21 | 52.5 | 56.8 | 62.2 |
| Valid 3.00 | 4 | 10.0 | 10.8 | 73.0 |
| 4.00 | 10 | 25.0 | 27.0 | 100.0 |
| Total | 37 | 92.5 | 100.0 | |
| Missing System | 3 | 7.5 | | |
| Total | 40 | 100.0 | | |

It is a good thing to have high cholesterol

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | True | 2 | 5.0 | 5.0 | 5.0 |
| | False | 37 | 92.5 | 92.5 | 97.5 |
| | 4.00 | 1 | 2.5 | 2.5 | 100.0 |
| | Total | 40 | 100.0 | 100.0 | |

Being overweight is a risk factor for development of heart disease

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | True | 37 | 92.5 | 92.5 | 92.5 |
| | False | 3 | 7.5 | 7.5 | 100.0 |
| | Total | 40 | 100.0 | 100.0 | |

What is the most significant sign of a heart attack

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--------|-----------|---------|---------------|--------------------|
| Valid | 1.00 | 6 | 15.0 | 15.4 | 15.4 |
| | 2.00 | 33 | 82.5 | 84.6 | 100.0 |
| | Total | 39 | 97.5 | 100.0 | |
| Missing | System | 1 | 2.5 | | |
| Total | | 40 | 100.0 | | |

What is the nickname for a stroke

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--------|-----------|---------|---------------|--------------------|
| Valid | 1.00 | 16 | 40.0 | 41.0 | 41.0 |
| | 2.00 | 7 | 17.5 | 17.9 | 59.0 |
| | 3.00 | 16 | 40.0 | 41.0 | 100.0 |
| | Total | 39 | 97.5 | 100.0 | |
| Missing | System | 1 | 2.5 | | |

| | | | | |
|-------|----|-------|--|--|
| Total | 40 | 100.0 | | |
|-------|----|-------|--|--|

The second hypothesis which was, “Following the conclusion of the Pink Goes Red for a Day program, the minority student population attending will have a better understanding of their heart health as evidenced by more than 70% answering all 15 post-quiz questions correctly” was proven true. Although some participants still answered a few questions incorrectly, the majority of participants answered all 15 questions correctly. The data are as follows:

Where is heart located

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid 2.00 | 37 | 92.5 | 92.5 | 92.5 |
| Valid 3.00 | 3 | 7.5 | 7.5 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

The heart is a

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid 2.00 | 38 | 95.0 | 97.4 | 97.4 |
| Valid 4.00 | 1 | 2.5 | 2.6 | 100.0 |
| Total | 39 | 97.5 | 100.0 | |
| Missing System | 1 | 2.5 | | |
| Total | 40 | 100.0 | | |

What is the average pulse rate

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid 1.00 | 20 | 50.0 | 54.1 | 54.1 |
| Valid 2.00 | 1 | 2.5 | 2.7 | 56.8 |

| | | | | | |
|---------|--------|----|-------|-------|-------|
| | 3.00 | 15 | 37.5 | 40.5 | 97.3 |
| | 4.00 | 1 | 2.5 | 2.7 | 100.0 |
| | Total | 37 | 92.5 | 100.0 | |
| Missing | System | 3 | 7.5 | | |
| Total | | 40 | 100.0 | | |

What is a pulse

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Valid | 2.00 | 38 | 95.0 | 95.0 |
| | 3.00 | 1 | 2.5 | 97.5 |
| | 4.00 | 1 | 2.5 | 100.0 |
| | Total | 40 | 100.0 | 100.0 |

What is the normal blood pressure range

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Valid | 1.00 | 3 | 7.5 | 7.5 |
| | 2.00 | 2 | 5.0 | 12.5 |
| | 3.00 | 34 | 85.0 | 97.5 |
| | 4.00 | 1 | 2.5 | 100.0 |
| | Total | 40 | 100.0 | 100.0 |

What does blood pressure tell you

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|-----------|---------|---------------|--------------------|
| Valid | 1.00 | 4 | 10.0 | 10.3 |
| | 2.00 | 32 | 80.0 | 92.3 |
| | 3.00 | 1 | 2.5 | 94.9 |
| | 4.00 | 2 | 5.0 | 100.0 |
| | Total | 39 | 97.5 | 100.0 |
| Missing | System | 1 | 2.5 | |
| Total | | 40 | 100.0 | |

How often should you exercise each week

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Valid | 1.00 | 8 | 20.0 | 20.0 |
| | 2.00 | 17 | 42.5 | 62.5 |
| | 3.00 | 15 | 37.5 | 100.0 |
| | Total | 40 | 100.0 | 100.0 |

Which of the following is a food low in cholesterol

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Valid | 1.00 | 31 | 77.5 | 77.5 |
| | 2.00 | 1 | 2.5 | 80.0 |
| | 3.00 | 5 | 12.5 | 92.5 |
| | 4.00 | 3 | 7.5 | 100.0 |
| | Total | 40 | 100.0 | 100.0 |

Which of the following ethnic groups are most prone to the development of heart disease

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Valid | 1.00 | 3 | 7.5 | 7.5 |
| | 3.00 | 35 | 87.5 | 95.0 |
| | 4.00 | 2 | 5.0 | 100.0 |
| | Total | 40 | 100.0 | 100.0 |

Which of the following is a possible cause of a myocardial infarction

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Valid | 1.00 | 2 | 5.0 | 5.0 |

| | | | | |
|-------|----|-------|-------|-------|
| 3.00 | 26 | 65.0 | 65.0 | 70.0 |
| 4.00 | 12 | 30.0 | 30.0 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

What is a myocardial infarction

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid 1.00 | 2 | 5.0 | 5.4 | 5.4 |
| 2.00 | 21 | 52.5 | 56.8 | 62.2 |
| 3.00 | 4 | 10.0 | 10.8 | 73.0 |
| 4.00 | 10 | 25.0 | 27.0 | 100.0 |
| Total | 37 | 92.5 | 100.0 | |
| Missing System | 3 | 7.5 | | |
| Total | 40 | 100.0 | | |

It is a good thing to have high cholesterol

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid True | 2 | 5.0 | 5.0 | 5.0 |
| False | 37 | 92.5 | 92.5 | 97.5 |
| 4.00 | 1 | 2.5 | 2.5 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

Being overweight is a risk factor for development of heart disease

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid True | 37 | 92.5 | 92.5 | 92.5 |
| False | 3 | 7.5 | 7.5 | 100.0 |
| Total | 40 | 100.0 | 100.0 | |

What is the most significant sign of a heart attack

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid 1.00 | 6 | 15.0 | 15.4 | 15.4 |
| Valid 2.00 | 33 | 82.5 | 84.6 | 100.0 |
| Total | 39 | 97.5 | 100.0 | |
| Missing System | 1 | 2.5 | | |
| Total | 40 | 100.0 | | |

What is the nickname for a stroke

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------|-----------|---------|---------------|--------------------|
| Valid 1.00 | 16 | 40.0 | 41.0 | 41.0 |
| Valid 2.00 | 7 | 17.5 | 17.9 | 59.0 |
| Valid 3.00 | 16 | 40.0 | 41.0 | 100.0 |
| Total | 39 | 97.5 | 100.0 | |
| Missing System | 1 | 2.5 | | |
| Total | 40 | 100.0 | | |

Discussion

Three nursing diagnoses were formulated along with interventions/expected outcomes for the chosen aggregate of minority college students. They are as follows:

Table 1

Priority Nursing Diagnoses with Expected Outcomes for African-American

Student Population

| Nursing Diagnosis | Interventions/Outcomes |
|---|---|
| Sedentary lifestyle related to weight gain as evidenced by lack of frequent exercise. | Students would become aware of the weekly recommended exercise and would also experience one of the Group Fitness |

| | |
|--|---|
| | classes offered by the RAC by end of program. |
| <i>Risk for imbalanced nutrition:</i> more than body requirements related to lack of knowledge of healthy food options as evidenced by unhealthy eating habits. | Students would express knowledge of inexpensive healthy food options and simple substitutions to make when cooking by end of program. |
| Deficient knowledge related to lack of understanding of common heart health issues as evidenced by low pre-quiz scores. | Students would gain knowledge of common heart health issues and improve quiz scores by end of program. |

Overall, the project served its purpose which was to educate minority college students about important matters regarding heart health. The teaching was effective according to the results of the pre and post quizzes. Nearly all of the people present answered all 15 questions correctly by the end of the program showing that the teaching was effective. The hypotheses that more than 70% of the minority student population attending the Pink Goes Red for a Day event would get all 15 quiz questions incorrect and that these same students would report having a better understanding of their heart health after the program as evidenced by answering all 15 questions correctly were somewhat true. The majority of the population answered all 15 pre-quiz questions correctly, and then nearly 100% of the population answered all 15 post-quiz questions

correctly. Expected outcome 1 which was students would become aware of the weekly recommended exercise and would also experience one of the Group Fitness classes offered by the RAC by end of program was met. The second expected outcome which was students would express knowledge of inexpensive healthy food options and simple substitutions to make when cooking by end of program was met. The final expected outcome, which was students would gain knowledge of common heart health issues and improve quiz scores by end of program, was also met. All outcomes were met through the various educational components of this program.

Strengths and Limitations

This study was very reliable in that the sample had a relatively equal mixture of medically related and non-medically related majors. The sample size also included a tight age limit of participants, meaning that almost all participants were between the ages of 18-22. Quizzes used were also well-constructed because the questions accurately reflected the content presented during the program. One major weakness of this study was that participants were not required to complete the quizzes alone. They worked together, which could have skewed the data. Another weakness was that some participants left before the conclusion of the program, so there were an unequal number of pre and post quizzes collected. One major strength, was that the quizzes were well thought out and they accurately reflected program content. Another was that the program flowed well and kept participants engaged throughout. Overall, although the study was indeed focused, there were still changes that could have improved the validity it.

Implications

Now that this research study is complete, it can be seen how the various issues investigated affect the chosen aggregate, minority college students. Originally the thought was that this aggregate would know next to nothing about heart health, but that was proven wrong. They still however, benefitted from the educational program as evidenced by higher quiz scores following the conclusion of the event. This shows that the chosen aggregate learned and retained valuable information from my program.

Public health education is still extremely important, primarily when focused on a vulnerable population such as college students. If this population is well-educated on important health matters like heart health, they will be able to pass this education on to others. Overall, this study proved that minority college students actually do have an understanding of what it means to have a healthy heart.

Recommendations

After completing this research study, I realized that there were several improvements that could have been made in order to improve the validity of it. If possible, it would have been beneficial to have a larger sample size than just 50. An attempt should have been made to include more males in the study in order to have more equal representation between males and females. The data may be strengthened by travelling to other campuses including ones that may have a larger minority population than Georgia Southern University, or ones that are primarily medical universities.

References

- Ackley, B., & Ladwig, G. (2011). *Nursing diagnosis handbook: an evidence-based guide to planning care* (9th ed.). St. Louis, MO: Mosby-Elsevier.
- Munoz, L., Etnyre, A., Adams, M., Herbers, S., Witte, A., Horlen, C., ... & Jones, M. (2010). Awareness of heart disease among female college students. *Journal of women's health, 19*(12). <http://dx.doi.org/10.1089/jwh.2009.1635>.
- Perry, S., Hockenberry, M., Lowdermilk, D., & Wilson, D. (2014). *Maternal child nursing care* (5th ed.). St. Louis, MO: Elsevier Mosby.
- Schwarzer, R. (2011). The Health action process approach. Retrieved from <http://userpage.fu-berlin.de/health/hapa.htm>
- Smith, M., Dickerson, J. B., Sosa, E. T., McKyer, E. J., & Ory, M. G. (2012). College students' perceived disease risk versus actual prevalence rates. *American Journal Of Health Behavior, 36*(1), 96-106.
- Stanhope, M., & Lancaster, J. (2014). *Public health nursing: Population-centered health care in the community* (8th ed.). Maryland Heights, MO: Mosby-Elsevier.