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Student Name: Brenna Sifford

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Students

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Advisor (print name): Robert Poage

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Health and Well-being and Academic Performance in Collegiate Students

Senior Project

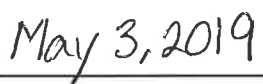
In partial fulfillment of the requirements for
The Esther G. Maynor Honors College
University of North Carolina at Pembroke

By


Brenna Sifford
Biology Department
May 1, 2019



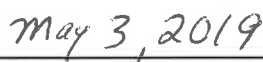
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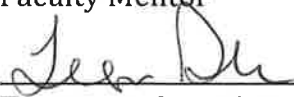
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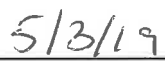
Dr. Robert Poage
Faculty Mentor



Date



Teagan Decker, Ph.D.
Senior Project Coordinator



Date

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Abstract

Through the support of the University of North Carolina at Pembroke and Student Health Services, I completed my service-learning project. In the Chavis University Center I tabled a health and wellness station. At this station I used an automatic blood pressure machine and a finger pulse oximeter to measure individuals' blood pressure and oxygen levels. I wanted to provide relevant information concerning their cardiovascular health and scholastic performance to participating individuals. My goal was to bring awareness to collegiate students in regards to their blood pressure and oxygen levels. I also wanted to provide the participating individuals with the meanings of their blood pressure and oxygen level readings.

I had over 100 participants approach me to learn their health numbers, and many returned consistently to learn and even track their health numbers. Overall, the goal of this service learning project was to give individuals the opportunity to make themselves more aware of their health.

Health and Well-being and Academic Performance in Collegiate Students

For my honors college senior project, I decided to complete a service-learning project that aims to inform college students of their cardiovascular health numbers. This service learning initiative stemmed from a desire to investigate the importance of health and well-being in relation to academic performance.

Research

Blood pressure is the force of circulating blood on the walls of the arteries. It is measured by systolic and diastolic volumes (NCI Dictionary of Cancer Terms). The average healthy individual's blood pressure will be close to 120/80 mmHg. 120 mmHg refers to the systolic pressure and 80 mmHg refers to diastolic pressure. When an individual's pressure is consistently greater than 130 systolic and greater than 80 diastolic, they are considered that they have high blood pressure (African Americans and Heart Disease, Stroke). High blood pressure is a great health risk. High blood pressure makes the body work harder to pump blood throughout the body. Over time high blood pressure damages artery tissue, and cholesterol builds up along the arteries. This increased buildup of cholesterol and other plaques clog blood vessels and resultantly raise blood pressure.

High blood pressure increases an individual's likelihood of developing heart disease. It is a silent but deadly killer because one can have high blood pressure and not show any symptoms, yet those symptoms can still cause permanent damage.

College students endure many stressors along the course of earning their degree. These stressors include academic, social, physical and mental stressors (Conley, Kristen and Lehman, 2012). Students report that papers, tests, and

studying contribute high amounts of stress. For those with test anxiety that amount of stress significantly increases. These stressors directly affect college students throughout their sympathetic nervous system (Conley, Kristen and Lehman, 2012). The sympathetic nervous system increases heart rate, blood pressure, breathing rate, and pupil size. According to Hughes (2007), the fear of failure increased systolic blood pressure and students' blood pressure significantly increased 2 weeks before finals.

Project Setup

In the Fall of 2017 and Spring of 2018, I set up a Wellness Wednesday event with Student Health Services. Two Wednesdays out of the month I was stationed in the University Chavis building from 10:00 am to 2:00 pm. In the Fall of 2018 and Spring of 2019, I was stationed in the University Chavis Building one Wednesday out of the month in the University Chavis building from 10:00 am to 2:00 pm. Over the course of two years I accumulated over 75 hours with Wellness Wednesday. I also participated in the Health and Wellness Fair and Pembroke Day here on the campus of UNC Pembroke. At Wellness Wednesday, the Wellness Fair, and Pembroke Day, I took the blood pressure and oxygen level readings of individuals. I also took body mass index (BMI) and then asked them what may have contributed to their health numbers. I provided them with the meanings of their numbers (Appendix 1) and campus resources to help manage their health numbers.

Over the course of the two years, I interacted with many individuals including UNC Pembroke collegiate students and members of the local community. I received many repeat participants who returned to track their health numbers. In

interacting with the participants, I revealed stressors that were affecting me and in return many participants even self-reported their stressors.

Reflection

Upon completing this service-learning project, I learned much about health and well-being. I thoroughly enjoyed providing UNC Pembroke and the surrounding area with a greater service. I successfully completed my goals of informing individuals of their health numbers, providing the meanings of health numbers, providing tips to help manage health numbers as well as providing campus resources to help manage health numbers. This project was important to me because many individuals are unaware of these simple health measures, yet they carry so much importance. If we know our numbers we are able to better care for ourselves.

As a student, this service-learning project was important to me because I personally struggled with many stressors and they affected my health. Knowing that the campus has resources to help me monitor and manage my health numbers is comforting.

This service-learning project is important to the campus community because many students deal with stressors and are unaware of how they affect their health. Upon completion of this service-learning project the many participants will now know and understand their health numbers. They will also have access to and will perhaps share the campus resources to do so.

My advice for individuals that wish to do a service-learning project similar to mine is as follows. I would advise that you fill out all paperwork necessary to be able

to use student's health numbers and make a more inclusive research project. Although I was able to converse with students and learn about their stressors and correlate their health numbers, I didn't have data specific to UNC Pembroke to support. In redesigning the efforts to measure students health numbers, providing a weekly survey would help to measure students stress levels and health numbers. The survey could ask participants to provide a schedule of what all their weekly stressors and stress reliefs consisted of as well as their measured health numbers. This would allow the tracking of stressors and health numbers.

Completing this service-learning project also helped me launch the Wellness Ambassador initiative with Student Health Services and Housing and Residence Life. Through this initiative resident advisors in each residential hall provide residents with health and wellness information, information regarding campus resources as well as campus events. This initiative will also serve to help keep residents aware of their health numbers.

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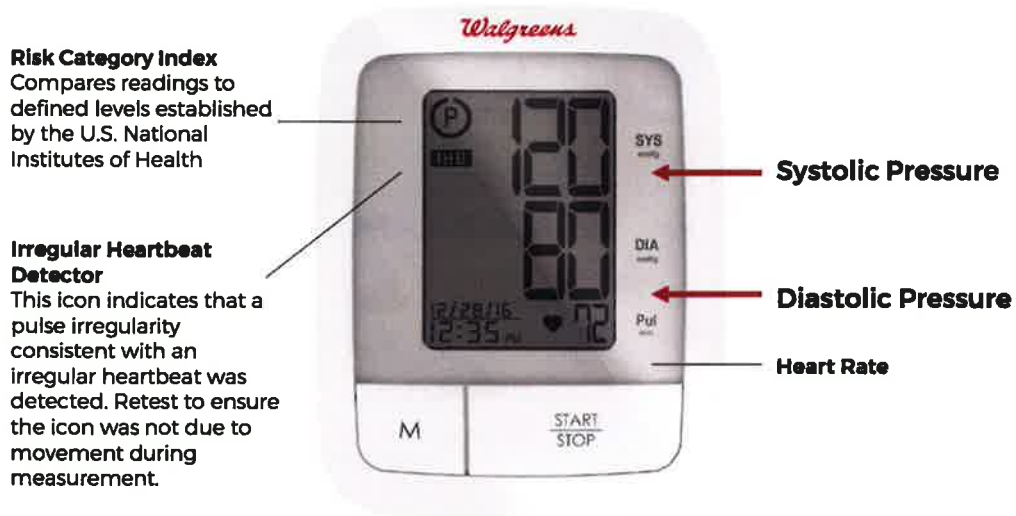
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Appendix 1



Blood Pressure Category	Systolic mm HG (upper #)	Diastolic Mm Hg (lower #)
Normal	Less than 120	and less than 80
Prehypertension	120-139	Or 80-89
High Blood Pressure (Hypertension) Stage 1	140-159	Or 90-99
High Blood Pressure (Hypertension) Stage 2	160 or higher	Or 100 or higher
Hypertensive Crisis (Emergency Care Needed)	Higher than 180	Or Higher than 110



For more resources on how to lower your blood pressure please visit The American Heart Association's webpage at: www.heart.org or contact UNCP Student Health Services at 910-775-4671.

Figure 1.1 The automatic blood pressure machine resembles the one used during Wellness Wednesday. The blood pressure chart was used to determine blood pressure categories of participants. This flyer was provided and modified by Student Health Services.