ClemFit: A Health Promotion Plan to Increase Physical Activity Rates Among Clemson
University Students
HLTH 3400: Health Promotion Program Planning
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#### INTRODUCTION

On average, about 40-50% of college students are not physically active. The recommended levels of physical activity for adults include 150 minutes of aerobic, or "cardio" activity in which the heart rate is elevated and breathing becomes harder. Aerobic activity can be anything from taking an exercise class to simply going on a walk around the neighborhood. Although there are many exercises that could classify as aerobic activity, the rate of adequate exercise per week for college students still remains low. As such, health professionals have attempted to address this issue, but have not seen a sustained increase in activity (Keating et. al, 2005). There are various short and long term benefits of consistent aerobic exercise, such as increased mood and better sleep to reduction in chronic disease risk factors and increased life span (Mayo Foundation, 2020). Specific benefits of exercise targeted towards our population of study, college students, include improvements of memory retention, focus, and concentration, as well as a decline in stress levels (Aiu, 2020). Studies show that students live more active lives while in high school, and they tend to lose those healthy exercise habits when they get to college. There are various reasons, both internal and external, that these healthy habits tend to decline once students are in college, including both personal and external reasons. Inefficient time management and less self-discipline are two internal factors that could lead to decreased physical activity, and external factors such as lacking convenient access to a gym will cause the same decline (Calestine et. al, 2017).

Within the state of South Carolina, the rates of adults who reported having no intentional physical activity within the past 30 days are significantly higher than the sedentary behavior rates of adults in the United States. For adults specifically, the rate of physical inactivity is 4% higher than the national average. As stated previously, lower rates of physical activity have been associated with higher rates of depression (America's Health Rankings). Adults in South Carolina have rates of anxiety and depression three times the national average, specifically in the young adults age group. In Pickens County, the rate of suicide has seen a steady increase in the past 20 years (Mintzer, 2020).

By implementing a plan using the MAP-IT framework, the hope is to increase the self-efficacy among college students to exercise more. This will be done by educating them about the positive long-term effects of including sufficient amounts of physical activity and providing incentives for participating in exercise classes. By partnering with local gyms around the Clemson area, access to affordable convenient workouts will be available to students. The needs of the community will be assessed through surveys and looking at statistics from the Community Health Needs Assessment and America's Health Rankings to determine what Clemson and the surrounding areas need in the program. A program entitled ClemFit will be implemented in an attempt to combat the growing trend of not meeting the recommended amount of physical activity among adults. The results of this program will be tracked by looking at a Logic Model and an Evaluation Plan in order to encompass all components of MAP-IT.

#### MOBILIZE PARTNERS

The partners chosen to aid this community were intentionally sought out to communicate, plan, implement and evaluate a strategy to improve the rates of physical activity in college students. These partners will be included in every step of the planning process so that they can contribute their knowledge and insight, and can take into account the direction of ClemFit. Our partners will be key in successful implementation of our intervention, as they will be interacting with and forming relationships with our target population. As such, we chose local businesses

and organizations that we know will invest their time and resources into our community, bearing in mind that the outcome of their contribution is improved wellbeing amongst their community.

The first organization we looked at was Clemson's Department of Campus Recreation, which comprises its two on campus gyms and outdoor recreation center just off campus. These facilities are staffed by undergraduate students, and give them the opportunity to lead fitness classes, work one-on-one as personal trainers, and connect with fellow students to help them become more comfortable at the gym. The first gym, Fike Recreation Center, is home to approximately 15,000 square feet of equipment, from cardio machines to an extensive range of weights. The second gym, Douthit Hills, is a recently constructed facility with two group fitness studios, functional training space, and additional cardio and strength equipment (Facilities homepage, 2020). Utilizing undergraduate volunteers from the on-campus gyms will help create a more dynamic and welcoming environment.

Other local, on-campus groups we could utilize for this project would be the pre-health and exercise-targeted clubs on campus. Examples of pre-health clubs at Clemson include Pre-Physical Therapy, Phi Delta Epsilon, and Paws for PA, and examples of exercise-targeted clubs include the Club sports teams and Changing Health Attitudes and Actions to Recreate Girls, or CHAARG. The overarching theme of these clubs is to promote health and fitness in a variety of formats. As such, members from these clubs could offer their knowledge and expertise through volunteering with our program. Students wishing to go to professional school after college would be an asset to our program as they presumably have a passion for health, and could gain valuable experience teaching and coaching fellow peers.

Moving a little further off campus, the Yoga Therapy Bar is located right outside campus, and aims to provide "holistic wellness services." Classes are priced between \$10-\$15, and virtual programs are offered as well. The Bar is owned by Dr. Nekita Sullivan, a physical therapist who is passionate about improving the wellness of Clemson students. In addition to her knowledge of physical therapy, she is a Certified Yoga Teacher, Certified Health Education Specialist, and Yoga Alliance Continuing Education Provider. Dr. Sullivan would be very beneficial to our project because she has stated multiple times that her purpose is to help Clemson students, and has even mentioned on her website that she is looking for ways to help out student-led clubs on campus (Yoga Therapy Bar, 2021).

Finally, 9Round is a kickboxing company also located in downtown Clemson. 9Round offers 30 min kickboxing classes led by fellow Clemson students and alums. This company offers a free trial workout, and then affordable classes or programs moving forward. Kickboxing is unique as it is an intense workout meant to relieve any feelings of stress or frustration, while being an empowering and strengthening cardio exercise. The aim of 9Round is to offer professional-quality training without sacrificing convenience or ease (Our Story, 2021). 9Round would be a useful partner for us because they allow for customers to build the classes around their busy schedules, and only offer 30 minute classes, so the issue of inadequate time would be diminished.

The ClemFit intervention program is a rationale for the development of consistent exercise patterns in Clemson University students by utilizing community partners to educate and confide in students who are not physically active. Classes taught through ClemFit will be offered at the same time each week so students can easily plan these classes into their schedules. To implement and sustain a consistent desire to workout, we will offer convenient prices and a convenient location for those who may be unable to commute off campus.

In South Carolina, 36.2% of adults are classified as obese, causing it to be the 11th most obese state in the United States. Additionally, South Carolina ranks 6th in the nation for two categories with risk factors associated with inactivity: diabetes, and hypertension (State Obesity Data, 2020). These statistics alone show the severity of the problem and the reasoning behind an intervention plan targeted towards physical activity rates in young adults in South Carolina. Within Pickens County specifically, the rate of adult obesity is 30% in 2021 (Pickens County, 2019). Although this is lower than the state average, Pickens has a relatively young population, and as such, it is especially important that healthy habits are instilled in the area so they can become an overall healthier state. Many of the detrimental effects of inactivity arise later in life so it is critical that healthy habits develop at a young age.

The need for an intervention plan targeted towards physical activity is supported by Healthy People 2030, as there are multiple objectives that stress the importance of sustained exercise. The first objective states "Reduce the proportion of adults who do no physical activity in their free time" (Physical activity, 2020). One reason for the high proportion of adults who do not exercise in their free time is lack of knowledge about the positive effects of exercise. ClemFit aims to educate students on the importance of physical activity, specifically at their formative age. Additionally, the same study found that, although lack of knowledge is a reason for inactivity, lack of motivation and inability to sustain a consistent routine are more impactful on an individual's choices. The longer in life an individual delays forming an exercise routine, the less likely they are to maintain that routine (Lachman, 2018).

The second objective states "Increase the proportion of adults who do enough aerobic physical activity for substantial health benefits (Physical activity, 2020). Substantial health benefits can be defined as beneficial prevention and management of noncommunicable diseases such as heart disease, stroke, and diabetes. In addition to physical benefits, improvements in mental health and well-being are also influential outcomes (World Health Organization, 2020). In one study, researchers found moderate to high levels of physical activity to be 40% more effective in the prevention of diseases than they had thought, based on changes in traditional risk factors such as blood lipids and hypertension that it can cause. Although medication proved to be the most effective intervention during this study, physical activity showed significant progress in reducing risk factor predictor levels. Additionally, this study showed how effective exercise can be in prevention before an issue arises (Joyner, 2009).

ClemFit is an incentives-based program that makes working out convenient, cheap, flexible, and rewardable. Although benefits such as increased lifespan and improved quality of life should be the driving force behind motivation, sometimes, when the effects are not pressing, it is easy to not prioritize something that will benefit you in the long run. ClemFit will offer workout classes taught by our local partners on campus, and will be offered at the same time each week to reduce confusion. In a systematic review analyzing studies done to research the connection between incentives and increased physical activity, results showed that incentives have positive, short-term effects on the individual (Jeroen et. al, 2017). The incentives that ClemFit will offer to students includes free preliminary workout classes, discounts at local grocery stores or healthy restaurants, and free Paw Points added after a certain number of workout hours. Although these are extrinsic rewards, or incentives toward the individual, the hope with ClemFit is that the rewards will eventually shift to intrinsic motivation. Intrinsic motivation is the desire to do something because the rewards are internal, or have shifted toward performing genuine enjoyment rather than receiving a prize. Intrinsic motivation is what sustains

a behavior change, however, it may take time before students decide to work out on their own (Meadows-Fernandez, 2018).

For this intervention, best practice strategies will be the most effective for implementation. There are many published studies that address the effectiveness of incentives to reward healthy behavior, and these are useful for ClemFit in order to understand the logistics of our incentives. The majority of the research regarding rewards has been done targeting obese/overweight students at college, but those studies fail to include the average student at those schools. Our program will use similar methods, but apply them to all students, as this is an issue that affects everyone regardless of BMI.

In the short term, improved mental health, GPA, and well-being will be increased by ClemFit. Risk of mental illnesses prevalent in college students such as depression, anxiety, and insomnia will decrease (CDC, 2021). Endorphins, or chemicals in the brain that reduce stress, are released and thus are the reason for better health. Additionally, these endorphins can also stimulate the growth of new brain cells (Cotman et. al, 2002). In the long term, not only will the risk of many diseases be lowered, but also the healthcare related spending to treat these issues will go down. In the United States, the medical cost of adult obesity is around \$200 billion per year, and in South Carolina specifically, the cost is around \$9 billion per year (SCDHEC, 2019). Perceived benefits from this program include lowering the cost of obesity, as citizens will become healthier. Individually, the lowered risk of disease and improved state of mental health will be what students look to achieve through ClemFit, but looking at key decision makers in the state, the lowered cost of a health problem will encourage them to support our program.

ClemFit will be successful because college students are experiencing presumably the first big change in their lives and this program will provide stability to a time of uncertainty. One explanation for the drop in exercise rates in college students is that many played a sport in high school and thus had a reason to be active, while coming to college, many stop playing those sports so they do not have any commitment to exercise (Peelor, 2016). ClemFit will help students who no longer have a routine, or did not have one in the first place, find a form of exercise they enjoy and are excited about doing. Incentives are key to this program as students rarely pass up an opportunity to receive financial assistance, especially when it is something that they will actually use. We will work with our partnered organizations to allow students to obtain either free or discounted workout classes, which will inspire students to try a new workout without any financial guilt. Additionally, this program will be successful because workout classes will be brought to campus, so the lack of transportation to any off campus studio will be disregarded. By providing all of the materials for our program on campus for free, we will be able to advertise to the students to simply show up.

To visualize the importance of this program, we have designed two social math examples related to physical activity in South Carolina. Including these visuals will hopefully emphasize the need for ClemFit, and will provide visual insight into the problem. See Appendix A.

#### ASSESS THE NEEDS OF THE COMMUNITY

To collect primary data of Clemson University students, we will send out a short survey to all undergraduate students. This survey will ask questions generating both qualitative and quantitative data that will be useful in narrowing down exactly what our program will offer. For example, location of workout, time of day the program should be, and what exactly they want to get out of a fitness-targeted program. To get people to actually participate in the survey, we will

keep it short and easy to access. Data from the responses will then be recollected and saved for future analysis (See Appendix B).

We will also utilize secondary data in order to see the current prevalence of this problem in a more general sense. We started out with data regarding Nutrition, Physical Activity, and Obesity in South Carolina as generated by the CDC. The CDC published a profile of the state indicating key statistics regarding dietary behaviors, physical activity, and overweight and obesity levels of adults in the state. The statistics presented are useful for preliminary data, as we now have a general sense of the profile of adults in South Carolina. The data presented will be useful when we obtain more specific rates from Pickens County, as we will be able to compare our target county's rates to rates of the overall state (State Nutrition, 2016).

Next, we will look at the 2018 Community Health Needs Assessment (CHNA) between Pickens County and Anderson County. Lifestyle behaviors such as physical activity are addressed in addition to related diseases such as obesity, heart disease rates, and mental health concerns. The assessment provides a comparison of data of rates of these diseases from 2015 to 2018 to see whether there is an area of improvement or concern for these diseases. This website is very useful for us because it helps us understand what the state finds as a priority, and how we can contribute to the wellbeing of the state. Related to ClemFit, the most useful piece of information gathered was that healthy lifestyles support and promotion groups are emerging and are showing positive outcomes. When more options to live a healthier lifestyle, such as trails, farmers markets, and healthier restaurants, are implemented into this community, people are more likely to make an increased effort to make a healthier choice. In addition, those who struggled to adapt to this healthy change noted that transportation, access, and cost were all barriers to change (CHNA, 2018).

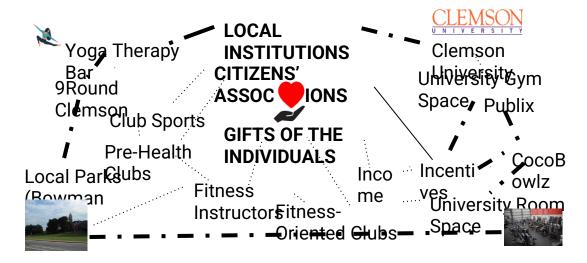
Finally, we will look at the annual report published by America's Health Rankings, which serves to provide a wide variety of health information data to help policymakers, advocates, and individuals of a community understand their constituents' health. This website offers the most comprehensive review of health outcome rates in South Carolina in comparison to national rates, and is extremely useful in considering the reasoning behind the rates we are addressing through our intervention. Rather than just listing the prevalence rates of problems in South Carolina, this website offers reasons for the low rates, such as social and economic factors, physical environment, clinical care, and behaviors. These sections help us keep in mind the reasons for the low rates, and what we should be targeting in our plan to combat extrinsic and intrinsic affecting factors (America's Health Rankings).

Once we analyze the results from our survey and the secondary data sources listed above, we will use the Basic Priority Rating (BPR) Model to determine what issues deserve the highest priority in our plan. Based on the prevalence and incidence rates of the secondary data obtained, we rate the issue of physical inactivity in Clemson University students as a 5 out of 10. As stated previously, 40-50% of college students do not obtain adequate activity each week, so we decided the size of the problem was about half of our target population. Next, we rank the seriousness of the problem as a 15 out of 20. The urgency of this problem was given a 3, as the rates of obesity in Pickens County are increasing, but have been relatively stable in the past 3 years. Severity was given a 4 because, although implications of inactivity are low for college students, its effects later down the road can be very serious. For many diseases, such as heart disease and various cancers brought on by low physical activity rates, mortality and disease progression can be more serious or immediate. Economic loss was given a 3, as \$8.5 billion of the \$29 billion budget is allocated toward obesity costs (Healthcare policy, 2019). This is a significant proportion of the

budget, and can slowly be reduced as our program gains more traction. Finally, impact on others was given a 5, as college students are easily influenced by their peers, and will have the most influence on other students to get involved in ClemFit. The third category, effectiveness of the possible interventions, we rate as an 8 out of 10. Based on prior research regarding effectiveness of incentive-based programs, we believe that our program will have a high participation rate, and as such, will make an impact on students' choices. In addition, we believe the incentives side of this program will result in high interest in the program, so we scored this section pretty generously. The final category, PEARL, is the determining factor of whether physical activity is a topic that should be addressed at all. The first category, propriety, we gave a 1. We believe that it is our responsibility to address the problem of physical activity at Clemson University, as we are students at the school and we want to help fellow students become the most active and balanced people they can be. The next category, economics, we also rated as a 1, as we believe this program will be economically feasible for us to carry out. This program offers very little costs for us to implement to the school, as we used local partners who are passionate about bettering the lives of their own community. The only financial concern we have to worry about is the monetary incentives, such as coupons for restaurants and free Paw Points, but we believe this to be feasible. We rated the third category, acceptability, as a 1 as well. Exercise is a communal need regardless of age, gender, ethnicity, religion, and any other cultural factors, and our program is meant to be as inclusive as possible. Our mission is to better everyone in our community, rather than just one subset of the population, so we gave this category a 1 as it is culturally acceptable to our community in need. The category of resources was given a 1 as well, as we believe we have the resources to pull this plan off. The only coordination needed between our partners and bringing the workout classes on campus is space. The companies we are bringing in to help teach classes will already have the resources needed to teach an effective class, however, if there is anything they need, such as extra yoga mats or equipment, we will look to our on campus partners to provide us with those resources. The final category, legality, was given a 1 as well, as it is completely legal for us to implement ClemFit into the University. Our intentions are to improve wellbeing and our partners will work with students individually to help make them feel comfortable and safe while working out. Since all five categories were given a 1, this program can be considered, and the formula can be computed (See Appendix C). The BPR formula yielded a result of 53.33, showing that attention focused on physical activity is necessary, but it is not a pressing nor a severe issue that needs immediate attention.

Listed below is a community asset map, in which all of the local partners, resources, and incentives we will be utilizing are listed and are connected. Primary assets are the most accessible assets, and are primarily under the influence of those in the neighborhood. In the graphic below, primary assets are noted by the dotted lines. Examples of primary assets included are local parks, fitness instructors, and clubs on campus. These are primary resources because they utilize local community members or public spaces that anyone can occupy. Secondary assets are assets located within the neighborhood, but are mostly controlled by people outside. In the graphic below, the connections with lines and dots are secondary assets. Many of the organizations we are utilizing are either on campus or right outside, but are owned by outside companies. For example, our incentives such as Publix and CocoBowlz are located in Clemson, but are owned by much larger companies. Additionally, the connection between off campus studios using on campus space are noted as secondary assets, as these are local parks and spaces, but owned by the University, so we will have to get approval from Clemson. The final asset, potential assets, are resources that originate outside the neighborhood and are controlled by

people outside as well. The only connection we have for a potential asset is noted by a solid black line, and is located between citizens' associations and incentives. Incentives will be offered based on the willingness of the organizations we utilize, and the amount they donate or contribute to the program is based on what their outside company is willing to give to ClemFit. The aspects we were not able to include in our community asset map were exchange, and culture, stories, and history. Exchange will happen between the local institutions and businesses we are partnering with, as they are offering knowledge and expertise in exchange for increased well being and eventual profit. Additionally, while the preliminary workout classes will be free, if there is a sustained connection between the students and businesses, eventually, there will be an exchange of students buying a membership at the studios. Finally, with the idea of culture, when ClemFit is established and integrated into the culture, it will be a shared identity of Clemson students. As more students participate in the program, the shared connection will create a unique environment where students feel safe and supported to change their behavior.



Our expectations for potential partners includes helping students reach their full potential in relation to exercise by being supportive, charismatic, and empathetic coaches. These partners will come in and essentially "sell" their business - offer a free class to students and encourage them to keep coming back. In addition, these businesses will help build self-efficacy, and confidence in students in terms of exercising. They are expected to offer gifts of the head, of the hands, and of the heart. Gifts of the head is information shared, specifically about the various types of exercise and the positive effects of consistently working out. Organizations and Clemson students we will partner with are expected to share their knowledge on how to find exercise that works for each individual, and what specifically they are doing to their body when they work out. Next, gifts of the hand are tutorials given by the instructors to ensure proper technique of working out. For example, instructors will show a specific type of exercise, and then students can copy them and learn by not only observing, but by performing as well. Finally, gifts of the heart are the driving force behind participation and inclusion into the program, as they ignite the passion and desire to live out a healthy lifestyle. Instructors and students are expected to share knowledge about the workout they are most excited about, and by showing this passion and excitement for health, will inspire students in the program to aspire to the same level of genuine enjoyment.

Specifically with the on campus partners, fitness/pre-health clubs and gyms on campus, we want our partners to come out of this program feeling confident in their decision to explain the importance of this health issue at hand. Many of the students in the clubs we are utilizing wish to attend professional school after college, and by effective participation in our program, they will be able to discuss their individual impact on the health of their community and gain experience working with, teaching, and consulting a unique subset of the population. The benefits the organizations will receive depend on their ability to capture the attention of students. If the companies build connections and encourage students on campus, students will feel more encouraged to come back.

#### INTERVENTION PLAN

Our goal is to increase physical activity levels in Clemson students by making access to working out easier and more convenient for students. Our communication objective is to communicate to Clemson students the nontraditional types of workouts they can do, and how they can learn to do them on their own. Our health education objective is to educate students on the detrimental effects of inactivity, and what diseases are most impacted by the lack of physical activity during adolescence. Finally, our cultural objective is to create a more positive environment surrounding the idea of exercise on campus, and make students feel empowered to start working out. This will include offering discounts at certain workout facilities besides Fike and Douthit in order to serve a more diverse socioeconomic population, and making sure everyone is aware of exercise they can do outside of traditional gym workouts. Our learning objective is for students to become familiar with different forms of exercise, and be able to complete them on their own. Our behavior objective is for students to implement some form of exercise into their daily routine. This behavior change can be one that students start to implement immediately. Our environmental objective is for Clemson to adopt a culture of healthy habits and to value exercise as a healthy form of activity. As such, our overall outcome objective is to increase the number of days students work out by 60%, or to increase the number of days active from 1 to 3 days per week. This will get students to follow the CDCs guideline for recommended physical activity days/minutes for adults. This objective is realistic, as we are simply asking students to perform the minimum amount of exercise the CDC recommends, rather than having them go above and beyond just to generate appealing exercise minutes for our program. We will track the number of minutes exercised through taking attendance, by scanning CUIDs, of all of those who attend the workouts.

We decided to look at the Health Belief Model when developing our intervention plan. We decided to use this plan, because it goes into comprehensive detail about what may be holding people back or preventing them from taking steps to change and achieve our objectives. The Health Belief Model in this case will look at many different constructs to explain why people do or don't want to make the change of increasing their physical activity. The first construct is looking at perceived susceptibility. If people believe that they are susceptible to the effects that lack of physical activity can have on their lives, they will be much more likely to make a change. This is why one of our objectives is to educate people on both the positive effects of increasing their exercise, and also educating them on the negative effects and how their lives could be impacted if they do not have adequate physical activity time. By educating students as part of our program, we can hopefully increase their perceived susceptibility, as well as their perceived severity, another construct of the Health Belief Model. Even if they are aware about what lack of physical activity can do, if they don't perceive these effects to be severe, they

still are not likely to make a change. These two constructs together are known as perceived threat.

The next two constructs of this theory are the perceived benefits and perceived barriers to increasing levels of physical activity. By using this theory within our intervention plan, we can look at what may be holding people back from wanting to take part in more exercise. These are the perceived barriers. Once again, our objective of educating students about the long term effects of exercise applies here as we can hopefully help students realize that the benefits outweigh the perceived barriers. Self efficacy is a huge component of the Health Belief Model. Self efficacy is believing that you are capable of making a behavior change or taking part in a specific behavior. In our intervention plan, we want to raise self-efficacy among students in order to increase the likelihood of wanting to exercise more. By educating students and providing incentives for participating in exercise, this will raise their self-efficacy. The Health Belief Model is the best theory to use as a guide when developing our intervention plan, because of how in depth it is at the intrapersonal level. It really examines why or why not a person would want to make the change to start exercising more. Our intervention plan aims to educate and promote the positive effects of increased exercise, and by using this theory we are able to look more into what may be holding students back from making a change.

Our main form of communication with students will be through social media and communication via the University. The majority of students at Clemson use at least one form of social media, and as such, we believe we will obtain the widest audience through advertisements and posts on social media. For the students who do not use social media, or just as a reminder, we will use campus wide emails in order to access everyone who may be interested. Social media announcements allow us to spread multidirectional information amongst students. First, on Instagram, for example, we would post a picture with information regarding the event in the caption, and those following the account would simply receive the message. We would also include information on the benefits the exercise would do to a person, in order to provide a sense of urgency and additional health information. This is our vertical, or top-down, process of disseminating information. Our classes and post-class seminars will stimulate students to think about their health and become more conscious about decisions they make. Any confusion or discomfort regarding what is discussed, or simply an increased desire to research the positive effects of exercise, can quickly be confirmed by a simple search online. This is called information seeking, and it entails how easy the internet has made finding quick information. Using the preliminary survey sent around at the beginning of the program, we will use this information to fine tune the details of ClemFit. Information generated from our consumers is our way of obtaining bottom-up user-generated messages, and will be very useful once our program is intact. Once students are actively participating, we will send around occasional surveys to see if there are any areas that need improvement, or if we should continue utilizing the strategies in place. These surveys will also target the fitness instructors, and show what they can do to see how they can improve their classes or relationships with students. The sharing of feedback from students to instructors, and the sharing of knowledge from instructors and students is called horizontal side-to-side information sharing, and will be useful learning about the impact on our partners and students. Listed in the two tables below are criteria we will consider when creating and distributing information and posts for our program.

Table 1:

POST Thackeray & Bennion (2009)	
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People	College students primarily use their phones for communication, laptops and iPads for school-related inquiries, and any form of sports watch for tracking activity
Objectives	By the end of this program, we want a change in knowledge and behavior to occur. Change in knowledge being increased awareness of what exercise can do for overall health, and behavior change as becoming more active
Strategy	See Table 2 below
Technology	We will use fitness apps to track progress, as we are aiming to see an increase in active minutes over time. We will also use messaging on the mobile apps to communicate between instructors and students

Table 2:

<u>P</u>	<u>Definition</u>	Application to ClemFit
Product	An idea, behavior, service, or tangible item that the target audience adopts	- Obtaining the recommended amount of exercise for students' age group - Increased self-efficacy in performing exercises
Price	What consumers have to give up to adopt the product	<ul><li>Time spent doing homework/work</li><li>Hobbies that conflict with timing</li><li>Cost of eventual studio subscriptions</li></ul>
Place	Where consumers will receive the product, engage in the behavior, or be exposed to communications	- Clemson's public spaces: Bowman Field, Intramural Fields, on campus rooms - Off campus studios
Promotion	The means of communicating the message to the target audience	- Advertisements on social media - Emails sent by the University - TigerQuest

Based on the details of the program, we believe that the most effective grassroots advocacy strategy for success of the program and beyond would be direct lobbying. For this, we could first contact someone who has the power to make change on Clemson's campus, for example the President, Jim Clements, or any member of the Board of Trustees. Just by contacting them, we will get the idea of change in their heads, and will prompt them to start considering the issue of physical inactivity as worth investigating. Next, once ClemFit is an established program at Clemson, we can actually meet with President Clements or any of the members from the Board of Trustees to explain the success of the program and how we wish to expand. With concrete evidence of the success of ClemFit, they will feel more inclined to contribute to the program. The best practice we can do through direct lobbying would be to develop ongoing relationships with President Clements and the Board of Trustees, so they can be in on ClemFit, and the wellbeing of their students. This could be done through notifying them throughout the program, such as the pre-implementation, implementation, and monitoring phase

so that they are able to keep up with what is going on to improve student morale, and the wish for their participation is not just sprung upon them towards the end of the program. At the least, creating relationships or bonds to create trust with influential officials could result in a more widespread outreach amongst students.

Listed below is a mock lesson plan for what we want our "teachers," or fitness instructors, to actually do for the program, and what we hope the students to get out of it.

# The Importance of Physical Activity in College Students

Course: HLTH 3400 Subject: Health Promotion Program Plan Prepared By: Abby Frank and Katherine Stricker

#### Overview & Purpose

Clemson University students will participate in a workout class led by instructors from 9Round, a fitness studio in downtown Clemson. They will then take part in a seminar led by group fitness instructors from Fike where they will learn about the positive impact of exercise and the long-term effects of not exercising.

#### Education Standards Addressed

SCDHEC's objective of improving early care and education environments to support healthy eating and active living is addressed in this lesson as it is trying to bring awareness to active living and implement it among students at Clemson.

	Teacher Guide	Student Guide		
Objectives (Specify skills/information that will be learned.)	objective of this lesson is to increase self-efficacy in students as it relates to increasing the occurrence of physical activity	complete workout     listen to informational seminar     make a creative workout schedule that can be hung up in an attempt to increase motivation to exercise more	Materials Needed     Paper     Pencil     markers     large poster board	
Information (Give and/or demonstrate necessary information)	discuss positive impacts of exercise as they relate to physical health and mental health     include things such as how sleep will be improved, life expectancy and quality of life will increase, muscular strength will increase and much more     also include what can happen overtime if sufficient time for physical activity isn't met	during the seminar, informational handouts will be given out that reiterate what was talked about     students will have the opportunity to follow along with the sheet as the student group fitness instructors are talking	large poster board	
Verification (Steps to check for student understanding)	give ample time for students to ask questions about the information learned and be sure to answer thoroughly ask students to summarize what they learned and how they plan to implement information learned	opportunity to ask questions about anything they are confused about and to speak individually to either the Clemson student group fit instructors or the 9Round coaches     can also talk to their peers about the importance of what they learned	Other Resources (e.g. Web, books, etc.)	
Activity (Describe the independent activity to reinforce this lesson)	observe students participating in workout     during seminar, have students split into groups and come up with their own workout schedule     having a plan written out to follow will increase self-efficacy in students	using markers and poster board, come up with a creative workout plan that will motivate students to stay consistent with their workout routines     can make in the form of a monthly calendar or a weekly calendar		
Summary	9Round coaches and group fit instructors will use various resources such as informational handouts, PowerPoints and a real workout in order to attempt to raise awareness about the importance of physical activity and increase self-efficacy so that students will implement these practices into their daily lives.	By the end of this lesson, students will have a deeper understanding of how important exercise is in their daily lives. They will have created a workout schedule that they can try and stick with to help build a consistent routine that they can follow.	Additional Notes	

To increase the audience of our program, we will offer social media posts, emails, and any other informational flier in Spanish. We wish to make ClemFit as inclusive and widespread as possible, so we want to make sure that information we are sending out is able to be understood by all at Clemson. Within the topic of physical activity, there are many health terms that those who are not in a health-concentrated major may not know of. We will treat our program as though those coming in do not have any prior knowledge relating to exercise terms and health and disease constructs. Explanations of health topics will be written at a 10th grade reading level, to ensure the information is easy to comprehend and understood. With regards to the exercise classes themselves, we will seek out instructors who also speak Spanish, or find members of the community to help translate classes for those who may need translation. The implications of a difficult or complex program to understand include worse health outcomes, or higher morbidity and mortality rates, and additional unnecessary healthcare costs. A SMOG test was performed

and indicated that our paper was at a 12th grade reading level. Additionally, the Flesch Reading Ease score indicated our text as "difficult to read." However, we believe it to be fine for our target population, as we are marketing to students in college.

#### **IMPLEMENTATION STRATEGY**

To make sure that ClemFit will be as effective as we desire, we will slowly phase it into the community to gain preliminary feedback and take a reactive approach to issues that arise. After receiving the primary data from our survey sent to the undergraduate population, we will implement the program for a subset of the Clemson population. To simulate the start of ClemFit, we will post messages on social media advertising the day, time, type, and location of the workout. Then, utilizing one of our off campus partners, we would have them lead a normal workout for the select group of students. Afterwards, we would send out a survey and obtain feedback for the whole experience from start to finish. Specifically, we could present our program to one of our on-campus partners, Clemson CHAARG. By offering this program to girls who are already in the mindset of wanting to consistently work out, we will know that any advice or feedback they give us will present itself eventually in the program, when students catch up to the mindset that the women in CHAARG started the program out with. Additionally, this group has already decided that they want to make their behavior more consistent, and as such, can share any insight that helped them get to that conclusion. We will obtain first-hand recounts of what helped them move from the precontemplation phase to the contemplation phase. Once we receive the feedback, we will tweak our program and hopefully be able to move forward. The next step in this project will be to phase ClemFit into the community. Since our priority population is quite large, we will slowly work our way into the culture of Clemson, rather than having a big reveal. This will allow us to have a greater sense of control over the program. To make this transition gradual, we will start out by only offering workout classes twice a week, but with parameters as to who can attend either day. For example, underclassmen on the first day of the week, and then upperclassmen on the second day. A smaller pool of people will allow connections to form, and for students to feel more comfortable coming back knowing they have people to meet up with. Finally, this will lead to total implementation, in which ClemFit is integrated fully into the Clemson community. The first day of weekly, full inclusion workouts will be "program launch." This day, we will encourage those who have been to the prior workout days to bring as many people as they can, and we will offer an extensive range of incentives and raffle prizes. For example, one incentive we could give out would be \$10 free Paw Points to all who attend, and an additional \$5 for however many classes were attended prior to the launch. To encourage further cohesiveness between the instructors and students, we will invite all of our partners, instructors from both off campus and on campus gyms, to come and introduce themselves and share their vision for the program. Having all of our instructors in the same place at once will reduce confusion if there are new partners at the workouts every time. The workout will be a short, trial workout for all of the new participants, and the rest of the time will be for students to talk to instructors, voice any concerns, and connect with other peers. Our soft launch will take place during the first week of September, as this will likely be 2-3 weeks into the semester. At this point, TigerProwl has already happened, and either students have joined clubs or they are still looking for what clubs they can join.

Below is a Gantt chart that maps the progression of this program, from the planning stages in July to where we are now, but for 2022. Marked in blue is the time allocated towards the planning and implementation of ClemFit, and the yellow line marks when that step was

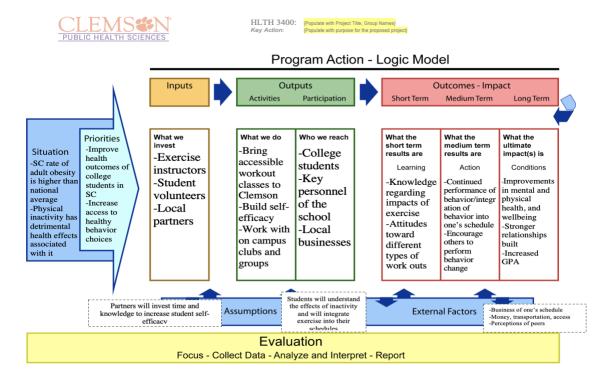
#### ClemFit

completed. During the project, we are able to visually track our progress each day spent planning. Although the program is only planned out from July to June, a new Gantt chart will be developed after the first year depending on any changes that need to be made.



#### **TRACK**

To monitor the progress of our program, we will utilize a Logic Model and Evaluation Plan, as listed below. These two pages will help keep our program on time and heading in the correct direction. They will also serve as reminders throughout the program, so we can always reference back to our mission should anything come up.





HLTH 3400:

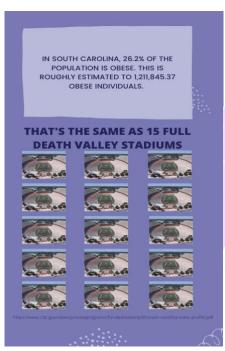
[The Importance of Physical Activity Among College Students, Abby Frank and Katherine Stricker]

Key Action:

[The purpose of our project is to bring awareness to the positive effects that increased physical activity can have on people's lives as well as bringing awareness to the negative effects that can happen if adequate physical activity time is not reached.]

4

Key Evaluation Question	Key Indicators	What is collected and how?	From whom / data sources?	When collected and by whom?	How will you analyze the data?
Was ClemFit effective in increasing the amount of time college students are obysically active each day?	Results of survey both before program is implemented and after  Verbal and written feedback about how students felt after taking part in both the workout and the seminar	Statistics about how much students workout both before program is implemented and after (collected in the form of a survey)  Self-efficacy of students is collected by asking if they feel that they have necessary resources to take part in adequate physical activity  Students opinions about the effectiveness of the seminar can be collected right after the seminar by filling out a critique form	data sources are surveys from college students and critique forms from the seminar all data collected is from college students since this is our target population	Survey given before the start of the program and the same survey given after program has been implemented for 6 months collected via google drive and shared with partner organizations for them to analyze	We will analyze the data by comparing the results from the survey taken before ClemEit was implemented and after it was implemented Average physical activity time among college students will be looked at to see if the times increased  From the surveys we can also see if self-efficacy went up by looking at responses to the question: "Do you feel that you have the necessary resources to get an adequate amount of physical activity every day?  Results will be analyzed by partners to get their opinion on how successful the plan has been



# Appendix **A:**

South Carolina spends \$8.5 billion on obesity costs each year Th



That's enough to pay 4 years of out-of-state tuition for 53,125 Clemson students

https://scdhec.gov/health/nutrition-obesity-physical-health#:-:text=The %20 economic %20 cost %20 of %20 obesity, billion %20 per %20 year %20 and %20 growing the first of the first of

## **Appendix B:**

For the primary data collection, questions from the survey are listed below:

- On average, how many days per week do you spend at a gym on campus? On average, how many minutes do you spend at the gym each week? What type of workout do you perform while at the gym? Do you believe you are getting enough exercise per week? Would you be interested in an incentives based program to help get you more active? Do you feel you have the necessary resources to get an adequate amount of physical activity every day?

### **Appendix C:**

The formula for the Basic Priority Rating (BPR) is as follows: (BPR) = (Size + Seriousness)(Effectiveness)/3 times PEARL

BPR = 
$$\frac{}{}$$
 (3)

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