EPIC

Enabling Peer Support in College Students with Chronic Illness

BY: CHANTAL LAFLAMME

Table of Contents

INTRODUCTION.....3
GOALS AND OBJECTIVES.....3
Mission Statement
Proposed Goals and Objectives
PURPOSE AND NEED.....4
Health Issue Significance and Barriers to Access
Resources for University of Georgia Students
Solution to Health Issue
Resources Available
Figure 1. Logic Model
PROGRAM DESCRIPTION.....**8**
Proposed Program Description
Overview of Website
Figure 2: Visual Representation of EPIC Homepage
THEORY
Reasoning for Theory Selection
Theory of Planned Behavior
Social Capital Theory
Figure 3. Description of Theories
Table 1. Overview of Theories
IMPLEMENTATION PLAN.....**15**
Staff Components
Table 2. Essential Program Components
Program Description and Activities
MARKETING PLAN.....**19**
Overview
Marketing Components
EVALUTION OVERVIEW.....**20**
Formative Evaluation
Process Evaluation
Summative Evaluation
BUDGET JUSTIFICATION.....**26**
Personnel
Travel
Equipment and Supplies
Other Expenses
Conclusion.....**29**
Budget.....30

INTRODUCTION

EPIC is an online peer support intervention for college students at the University of Georgia who are experiencing a chronic illness. This program is delivered through online platform, which serves as an educational resource and peer-support group for this population. EPIC promotes communication among these students by providing the opportunity for students to engage with others experiencing similar health related challenges. Our vision is to help students who are experiencing chronic illness by increasing social support, emotion well-being, and symptom management techniques.

GOALS AND OBJECTIVES

Mission Statement

Our mission is to facilitate an online platform that creates a community of college students experiencing chronic illness who support one another. We strive to provide these students with the necessary resources to successfully navigate the challenges surrounding living with a chronic illness while attending The University of Georgia.

Proposed Goals and Objectives

1. **Provide an easily accessible website which allows individuals to safely and comfortably share personal experiences.**
    a. During the 30 day sign up period, at least 60% of those with a registered chronic illness will successfully enroll in the program.
    b. A Likert scale will be provided to students after 60 days of the program and a minimum of 70% of website users will rate the website's user friendliness as easy on a scale that includes: easy, moderately-easy, medium, moderately hard, and hard.
    c. At the six-month evaluation of the program, at least 50% of users will report virtually communicating with at least two other students at a minimum of a bi-weekly basis.
    d. After six months of the program, at least 55% of students will have engaged in the website for 30 minutes or more per week.
2. **Ensure that students with chronic illness are aware and capable of accessing the resources available to them.**
    a. At the end of the two year period, 80% of students will be able to name at least two non-clinical internal and external resources available to assist them.
    b. At least 70% of students enrolled in the program will be able to identify the transportation services available to them by the program mid-point.
    c. An analysis at the end of year one will demonstrate that at least 65% of students can identify the counseling resources available to them.
3. **Improve the social and mental well-being of this population by increasing communication and peer-support.**
    a. By the end of the program, at least 50% of participants in will report at least 25% less risk of social isolation from baseline.

b. At least 65% of the students enrolled in the program will report supporting at least three other students during the course of the program.
c. End of program evaluation will have students report increased self-efficacy in managing their condition and coursework by 50%

PURPOSE AND NEED

Advances in medicine have significantly decreased mortality rates of previously fatal chronic diseases. Individuals who would have been at high risk for death in early adolescence are now able to attend university[1]. In the United States, roughly 15% of university students report living with a chronic condition[2]. This statistic is likely an underestimation of the true population, as many students do not identify themselves with their university as having a chronic condition[2]. The most common chronic diseases in undergraduate populations include Crohn's disease, sickle cell anemia, diabetes, and chronic Lyme disease[3].

Students with chronic diseases face many obstacles that make being successful in university challenging. Specific medications, dietary restrictions, and strict sleep needs often make it difficult for students to find enough time to complete coursework and develop healthy relationships[3]. A major determinant of success in college is whether a university offers support for the health-related needs of chronic conditions[3]. While many universities offer accommodations to help students manage their coursework, most accommodations focus on allowing students to miss class time to manage their condition and testing accommodations for health-related disabilities. It is uncommon for university programs to consider the unpredictable nature of chronic diseases[4]. There are many diseases such as multiple sclerosis, asthma, and lupus that are characterized by flares of severe activity followed by remission. These flares can cause students to spend large periods of time getting treatment and thus make it difficult to succeed in university by limiting their energy and time for coursework[3]. Students who experience these unpredictable symptoms often need more than academic accommodations, such as peer support and mental health resources. At large universities there are few effective and easily accessible resources that help students connect with peers and manage the emotional aspects of chronic conditions[3].

It is imperative to the health of all individuals to develop on-going, healthy relationships with family and friends. Strong support systems are crucial for students managing a chronic condition[5]. Individuals often report severe difficulty managing their chronic conditions on their own and lack of support from family and friends is a factor that may lead to even worse health outcomes[6]. As adolescents grow older, they tend to shift their emotional support from family to friends and college-aged students most often rely on their peers as their support system. The transition from high school to freshman year in college is a transition where peer support is often most crucial. It is important to ensure this population has the support they need. In the presence of a social support system, those experiencing chronic illness often report higher life satisfaction[3]. There is a dire need for health promotion interventions that increase peer support among this population of university students. The pilot of this program will focus on students at the University of Georgia who have a chronic disease. The goal of the program is to provide a medium for students experiencing chronic diseases to communicate via a website. This technology will allow students to connect in an effective, safe way that protects the

anonymity of individuals. The website will also include resources that will further enable students to successfully manage their condition and navigate university.

Health Issue Significance and Barriers to Access

Most college students experience at least some struggle with course work, but those experiencing chronic illnesses face the added burden of their managing their condition[6]. This population must navigate many things including successful self-management, family involvement and support, clinical expertise, and health insurance[2]. This can be extremely time consuming and exhausting and students are often left with less time for course work and making friends[2].

Peer support among those with chronic conditions is something that can be enabled to manage a chronic condition, yet there are many barriers to accessing peer support for this population[3]. A major barrier to support is that many conditions are seen as "invisible." This is when an individual appears to look as if they are healthy when they actually have a chronic illness. If a student is asymptomatic, they have to disclose their condition in order to gain peer support. This often leads to students not seeking support from peers[7]. This population also faces additional barriers in the classroom. Students commonly report that feel as if they must prove themselves as healthy to professors and peers, which often leads to social isolation[3]. These students also commonly report not having enough energy to participate in social interactions with their peers who do not have a chronic condition, which can lead to adverse mental health outcomes[2].

There are many adverse health behaviors and outcomes associated with chronic conditions that are risk factors for mental disorders. These behaviors include: disability, symptom burden, and decreased health-related quality of life, which are all common behaviors in this population[8]. Mental health disorders, such as anxiety and depression, are commonly comorbid with chronic illnesses[8]. Those who have a chronic condition are more likely to suffer from depression[9]. This is challenging for college students, as approximately 80% of those with depression report at least some level of functional impairment. Depression is factor that can influence the ability of students to be successful with their coursework, as it often decreases energy and motivation[8]. Anxiety is also commonly seen in this population of college students and anxious tendencies can often be attributed directly to chronic illness. Examples of anxiety that students with chronic illness face include worrying that a professor will think they are lying about their condition, having an episode during a test or class time, and getting comments about medications from peers[8]. It is notable to mention that treating a chronic condition is often costly, and the cost of treatment for mental health is another barrier that may prevent students from seeking help[9].

Another major barrier that this population faces is that they are often unaware of the resources available to them[2]. Even if the resources at a university are not extensive, students often report that they were never made aware of on-campus resources or their health-related personal rights. In order to be successful with managing their condition, it is imperative that students are aware of their rights such as the right to receive an incomplete instead of a withdraw in the event of medical leave from school. Another example of a reinforcing factor to help manage a chronic condition that this population should be aware of is if universities provide a transportation system to get students to and from doctor's appointments[2].

Solution to Health Issue

A resource that has been shown to increase peer support and improve mental health outcomes among those experiencing a chronic illness is online peer support systems[2]. Well-designed peer support interventions have been found to improve health-related quality of life, health behaviors, chronic disease control, and decrease hospitalizations and mortality[10]. Frequent interactions with healthcare providers and face to face interactions with peers may not be feasible for many individuals due to finical, transportation, geographical limitations[11]. Online peer support programs can be beneficial, as they remove the barrier of location and offer an anonymous platform for communication. In addition to peer support, online programs can provide people with many additional resources including disease-specific information and access to self-management techniques[10]. Further benefits of online based peer support systems include convenience, anonymity, availability to large populations/groups and encouragement for treatment[10]. This low cost alternative compared to traditional support groups can be a significant reinforcing factor for continuous use[10]. The perceived benefits of peer support systems include: giving and receiving emotional support, learning new coping skills, sense of hope and empowerment, and advocating to improve healthcare for other patients[12].

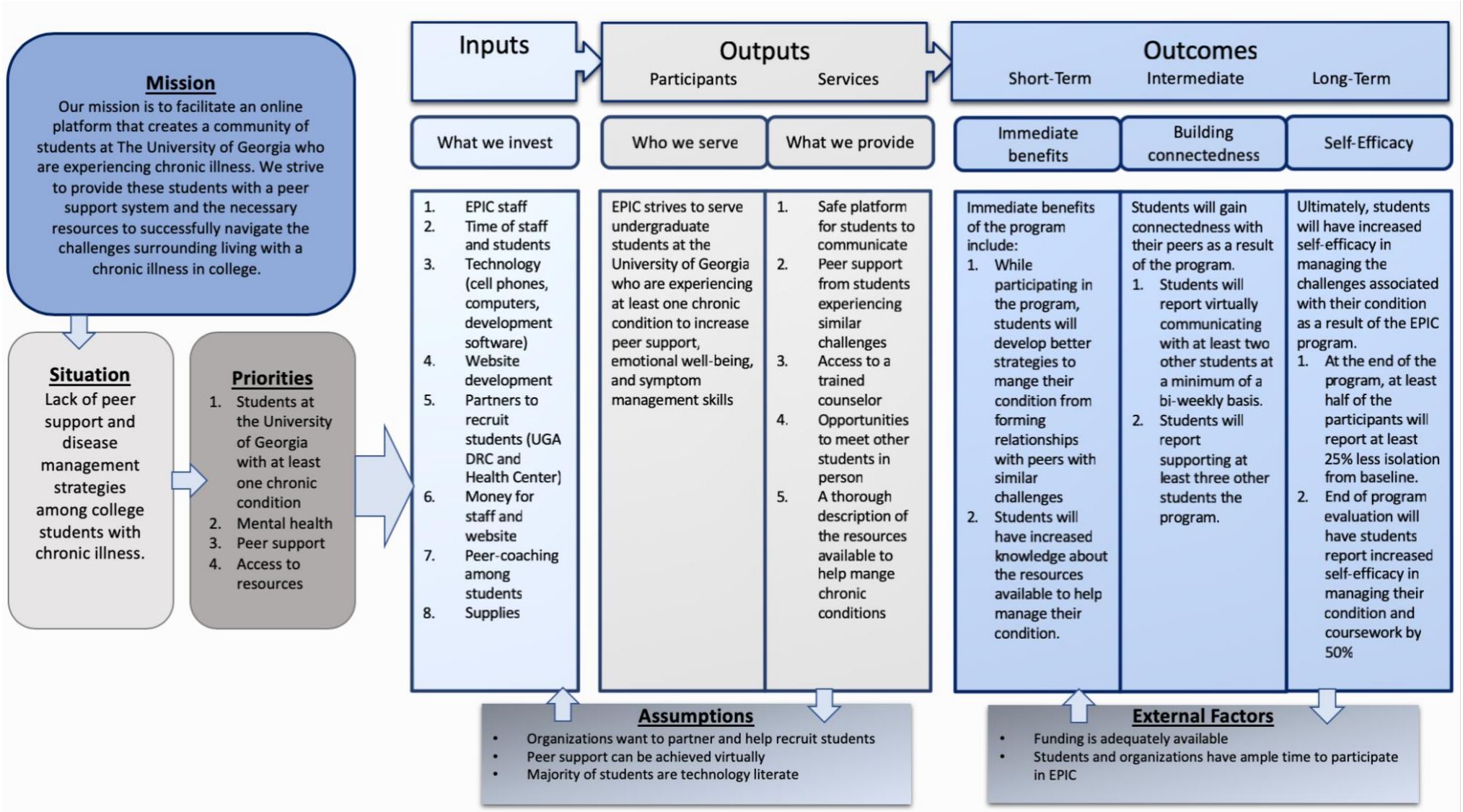
E-health interventions are something that can be an especially successful tool for technology-literate populations such as college students. Most telecommunication interventions thus far have focused on specific conditions rather than working on engaging an entire population of people experiencing chronic disease. A study with 371 university students with diabetes Type 1 diabetes mellitus examined how the College Diabetes Network, an online peer support system, influenced affiliated members. This program worked to connect students and provide the opportunity to share experiences and develop effective coping strategies. The study found that students who were a part of the program were less likely to report depressive and anxiety symptoms and social isolation compared to those who were not affiliated members[13].

There is an urgent need to provide peer support for college students with chronic conditions. Telecommunication is a growing field, and it is important that this resource is utilized to improve health outcomes in this population. Online support systems are a way that students can connect in a safe and inexpensive way. Ultimately, this program will provide students with increased mutual reciprocity, crucial health related information, and emotional support. By having increased self-efficacy to manage their chronic conditions, students may obtain greater health related quality of life, improved health behaviors, better control of their condition, and decreased hospitalizations and mortality[12].

Resources for University of Georgia Students (for medical and emotional accommodations):

1. **UGA Disability Resource Center:** 825 S Lumpkin St, Athens, GA 30605
2. **UGA Counseling and Psychiatric Services (CAPS):** 55 Carlton St, Athens, GA 30602
3. **UGA Health Center:** 55 Carlton St, Athens, GA 306

Figure 1. Logic Model



PROGRAM DESCRIPTION

Proposed Program Description

The EPIC program is a peer support group facilitated by a public health professional through a website. The purpose of using a website is to provide a platform that is always accessible for students to communicate through. A website also provides an easy and fast way to educate students. The website combines the five key components of peer support groups developed by the Defense Centers of Excellence: social support, experiential knowledge, trust, confidentially, and easy access.[14]

Overview of Website

The website includes many features that ensures easy navigation, safety, and anonymity. A detailed description of the reasoning behind the website design and how the program will be executed is outlined in detail in the Implementation Plan section.

A. Key components of the website:

1. Online Forums:
   The website will include online forums based on the Mental Health America's topic-focused peer support group structure. In this model, discussions are focused around topics chosen by the c public health professional, but group members are also free to start their own conversations[15]. To adhere to this model, the public health professional will post thread topics to help start conversations. Students will also able to post their own threads with facilitator approval.
2. Opportunities to Meet in Person:
   The public health professional will ensure that individuals have ample opportunities to meet in person. These events will take place in public areas and the public health professional will be present and stand-off side to ensure the safety of all individuals.
3. Providing Resources:
   This website will also include a comprehensive list of the resources available that may help these students. The resource section will also include information about accessibility of the resources, transportation options, and payment options.

B. Logistics and Features of the Website:

- Anonymity: When students create their profile, they will be given the option to disclose their identity.
- Safety: The public health professional will be able to approve new posts before they are published to the website.
- Group Rules: The rules for group participation will be outlined in detail on a rules page.
- Announcement Page: There will be one page for the facilitator to make announcements.
- Question Submission: One page of the website will allow for participants to submit questions to the facilitator.

Figure 2: Visual Representation of EPIC Home Page

THEORY

Reasoning for Theory Selection

Past research has shown that the way that e-health interventions are implemented can be problematic if not designed correctly[16]. The use of a theory is imperative to developing a program that yields desired outcomes[17].

For this program to be successful, students will have to buy into the program and stay engaged by being active on the website. Active engagement includes posting threads and providing constructive responses to peers. The individual and group nature of this program can best be addressed by the integration of two health promotion theories. The Theory of Planned Behavior (TPB) is focused on the intentions toward individual behavior and will be utilized in order to analyze how to best get individuals to buy into the program[18,19]. The Social Capital Theory is used to explain the factors that play into group connectedness[20]. The integration and use of these theories are outlined below and shown visually in *Figure 3.*

Theory of Planned Behavior: Overview

The Theory of Planned Behavior is a social psychology theory used to predict and explain a wide range of health behaviors[21]. This theory is structured around the idea that an individual's attitude toward a behavior stems from their underlying beliefs regarding the behavior[19,22].The main determinant of behavior is based upon the individuals intention to perform the behavior. These intentions are determined by three factors: attitudes toward the behavior, subjective norms, and perceived behavior control [18,19]. Individual, social, and informational characteristics have a direct influence on these beliefs[21]. *Figure 2* shows how these factors are connected.

Theory of Planned Behavior: Key Components

Behavioral Beliefs and Attitudes

The TPB shows that an individual's favorable or unfavorable evaluation towards a behavior will shape their attitude toward that behavior [3,19,22]. When making the choice to engage in a behavior, an individual weighs the potential positive and negative consequences of the behavior[23]. For this intervention, if an individual perceives a peer support group as something would make managing their condition easier, they may develop a stronger intention to participate compared to someone with a negative perception of peer-support groups.

Normative Beliefs and Subjective Norms

Normative beliefs refer to the way that others would feel about a behavior[3,23]. For this program, students make consider how their parents or doctors would feel about them engaging in a peer-support group. Normative beliefs have a direct influence on subjective norms which refers to the actual social pressures that people face to engaging in health behaviors. A subjective norm for this population may be that family or doctors are encouraging an individual to seek peer support because they notice social isolation in the student.

Perceived Behavioral Control

Perceived behavioral control is derived from the Self-Efficacy Theory of Bandura [21]. This refers to the sense of control individuals have when engaging in a behavior. Students may consider

whether or not they are confident in their ability to engage in the behavior and if they readily have to tools available to engage[23]. For this program, students may consider if they have adequate technology skills and resources available to partake in the website. Past experiences also have a significant impact on perceived behavioral control[21]. If an individual participated in a peer support group previously, their experience may significantly impact their choice on whether or not to participate in this program.

Behavioral Intention

Behavioral intention is also known as subjective probability, which is the individual probability to engage in a particular behavior. In this theory, it is assumed that intention is an immediate antecedent of behavior [21]. When recruiting students for the program, it is important to ensure that they intend to participate in the program. The previous components of TPB will be used to help promote intention.

Social Capital Theory: History

The Social Capital Theory (SCT) examines the importance of developing meaningful relationships[20]. The theory shows that being connected with a group helps generate short and long term benefits[24]. This is an excellent theory for this program, as the website aims to create a community where students can form relationships that will provide them with benefits, they would not get without being a part of the group.

Networks

Networks can occur among small groups as well as large organizations[24]. This theory proposes that by belonging to a social network individuals may secure certain benefits and resources that they could not get on their own[25]. The website will build a community of college students who are experiencing a chronic illness. Engaging in the website offers students emotional support and social connectedness that they would not get without being a part of the network. Furthermore, being a part of the network will help students develop new skills that will help them manage their condition.

Trust

The willingness to share with others in a social context is based on trust. It is imperative that participants engaging in the program are able to trust one another[24]. When users sign up from the program, they must agree to keep other student's post confidential. Students will be dismissed from the program is they are caught sharing posts from the website in any way.

Reciprocity

Reciprocity refers to the expectation that the relationship benefits of one person will also be provided by the other person[20,25]. In the EPIC program, this would mean that if one individual provides support to a peer through a constructive reply to a post, the individual who received the support would reciprocate. Students will be encouraged to respond to the threads of other students.

Social Norms

Similarly to the Theory of Planned Behavior, social norms refer to the unwritten values of individuals that engage in a given behavior[25]. In social settings, students with chronic conditions may feel the need to refrain from disclosing their condition. They may also find it challenging to fit in in social settings due to symptom management and medication adherence. The threads on the website will help students cope with these barriers.

Personal and Collective Efficacy

The group will have a high level of collective efficacy if the individual members feel like they are capable of participating in the program. The website will be available on both computers and cell phones to help alleviate technology availability barriers.

Figure 3. Theory of Planned Behavior (Individual) and Social Capital Theory (Group)

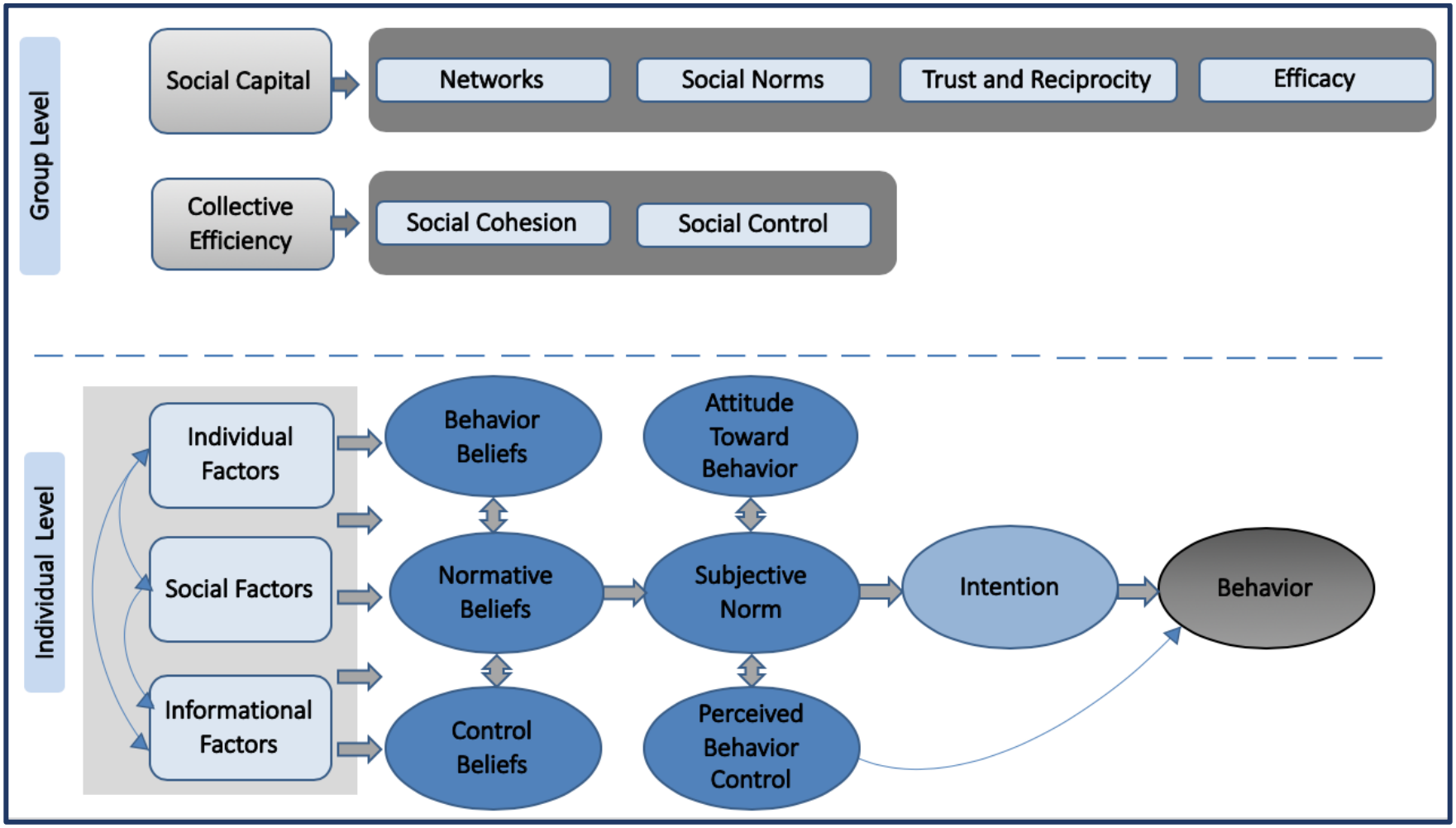


Table 1: Description of Theories

Social Capital Theory	**Networks** • Website builds a community of college students who are experiencing at least one chronic illness • The network offers students benefits such as emotional support and social connectedness that they would not receive without the network • Communication with other students in the program help students develop new skills to mange illness		**Social Norms** • Students may feel the need to refrain from disclosing their chronic condition in order to fit in during social situations • There may be difficulties fitting in in classroom and social settings due to symptom and medication adherence	**Trust and Reciprocity** • Trust among group members that personal information shared will not be disclosed • Students provide and receive constructive peer-support within the online community	**Efficacy** • Individuals feel they have the skills and resources that make them capable of participating in the program
Theory of Planned Behavior	**External Variables Impacting Behavior Intention**	**Beliefs**		**Intention**	**Behavior**
	Individual • Individual variables influence intervention engagement • Examples: personality traits, mood, emotional intelligence, values, stereotypes, general attitudes, past experiences **Social** • Social factors will play a role in self-efficacy of program engagement • Examples: education, age, gender, income, religion, race, culture **Information** • Previous knowledge and participation in e-health programs may shape attitude towards intervention • Examples: personal knowledge, media, previous interventions	**Behavior Beliefs** • Beliefs about the potential consequences of peer support will ultimately shape attitude towards the engaging in the peer-support program • Perceived belief that peer support will or will not improve quality of life • Belief that peer support could improve mental health	**Attitudes** • Belief that peer support will be beneficial to overall well-being • Degree to which peer support is valued • Emotional reactivity: attitudes towards disclosing chronic illness to other peers in the group	**Intention** • The intention to participate is based on the assumption that intending to participate in the online peer support group will be an immediate antecedent of actually engaging • Based on this theory, the intention to take part in the program is influenced by students attitudes, subjective norms, and perceived behavior control towards online peer-support programs	**Behavior** • The observable behavior in this program is involvement in the website • Involvement in the website can be defined as students successfully enrolling in the program, actively engaging in the website, and regularly meeting other students in person • Is ultimately based on perceived behavioral control
		Normative Beliefs • How people close to the student may perceive their engagement in a peer-support group • Perceived social pressure of family, doctors and friends	**Subjective Norms** • Actual social pressures of family, friends, and doctors that a student should increase engagement with others experiencing chronic illness may influence intention to engage in the program		
		Control Beliefs • Self efficacy to engage in the website • Belief that access will be attainable and that adequate resources are available (cell phone, computer, internet connection)	**Perceived Behavior Control** • Individual perception if the website will be easy or difficult to engage in • Influence of past experiences with peer-support interventions		

IMPLEMENTATION PLAN

The EPIC program will be implemented in five stages. The program will be evaluated at each phase to ensure the intervention is being implemented successfully. Planning for EPIC will begin in February 2020 and the program will begin in September 2020.

Staff Components

EPIC will require several staff members to properly design, implement, promote and evaluate the program. Descriptions of the EPIC staff our outlines below.

Project Manager

The project manager is the public health professional that will be responsible for overseeing all operations of the EPIC program. This individual will ensure the staff is working together to make the program run accordingly. In addition, this person will be responsible for leading the needs assessment, pilot test, and engaging stakeholders.

Project Director

Facilitating the EPIC program will be facilitated through the project director. It is important that this individual is adequately informed about the emotional and administrative demands of the job[26]. The directors primary role is to maintain a safe environment that maintains confidentiality and respect[15]. Additional responsibilities will include monitoring the website, creating group meet ups, and reporting any technical difficulties to the website developer. A crucial role of the facilitator is to maintain a safe environment that maintains confidentiality and respect[15]. The role of this facilitator is not to serve as a therapist but to encourage healthy interactions among group members[14].

Software Developer

A website developer will be recruited to design and troubleshoot the website. At minimum, this individual will need a bachelor's degree in a computer science related field. Important skills that the developer will need include math knowledge, a thorough understanding of computer systems, analytical thinking skills, attention to detail, and openness to change[27].

Data Analyst

The EPIC program will consult a data analyst to help evaluate the program. The data analyst will work closely with the software developer to ensure that student information is measured in a consistent manner. The data analyst will be responsible for evaluating the program during the intervention as well as analyzing the data after the program finishes.

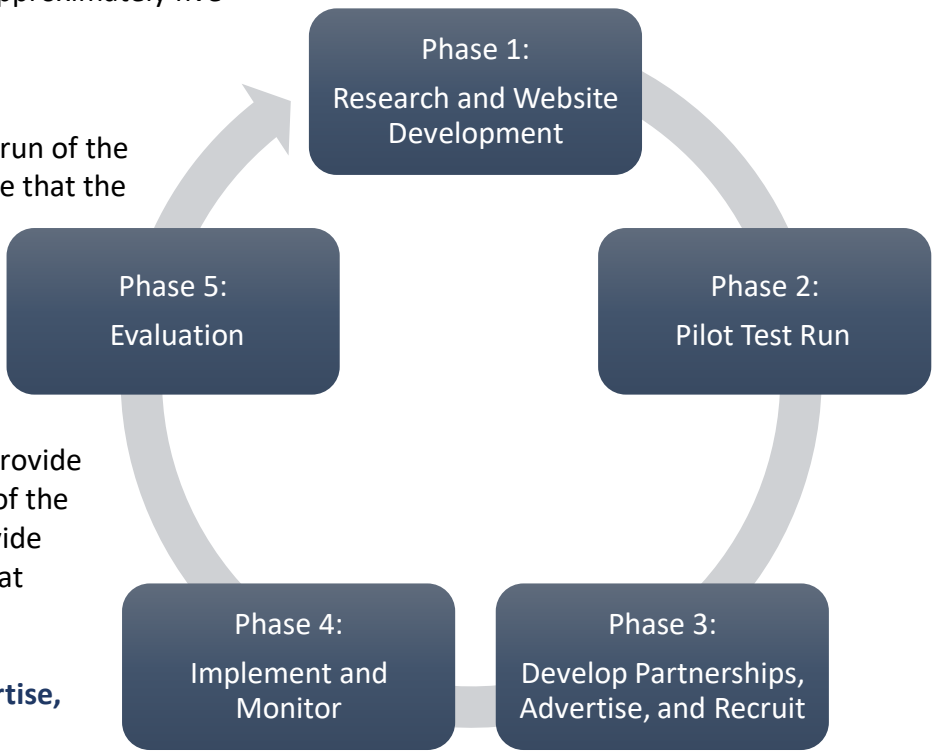
More detailed descriptions of the personnel is outlined in the budget justification.

Table 2: Essential Program Phases

Essential Program Phases			
Phase	**Start Date**	**Description**	**Tasks Accomplished**
Phase 1: Research and Website Development	Feb. 1st, 2020	Further research will be conducted to ensure that the needs of the population are sufficiently met. A website designer will create the website. The public health professional will be recruited and trained on the methodology for implementation. Stakeholders will also be identified in phase one of the program.	• Research • Recruit and compensate website developer and public health professional to be the project director • Website design • Train public health professional
Phase 2: Website Pilot	June 2nd, 2020	The website will be tested for usability to ensure there are no technical errors. Students from the Health Promotion program will help test the website. These students will provide feedback about their experience with the website.	• Ensure the website is active • Practice engaging in posted forums • Pilot tests
Phase 3: Develop Partnerships, Advertise, and Recruit Individuals	August 15th, 2020	Partnerships will be developed with the UGA Disability Resource Center and The Health Center. The program will be advertised through these partners. Advertisement for EPIC includes physician referral and well and promotion flyers on UGA's campus. Students will be able to enroll in the program.	• Develop relationships with Disability Resource Center and UGA Health Center • Advertise • Recruit participants
Phase 4: Implement and Monitor Program	September 15th, 2020	The website will go live and additional troubleshooting will be completed as needed. Students will sign up and take the initial survey. Data will be taken and continuously cleaned. The website will then be available for access.	• Student survey • Group meet ups • Online forums • Access to resources
Phase 5: Evaluation	To be decided	Program will be evaluated based on user feedback, amount of posts engagement, and participation of group activities. Students will be promoted to take the post program survey after EPIC is over.	• Post program survey • Program evaluation

Program Description and Activities

Phase 1: Research and Website Development In Phase 1 of the program, the staff will be recruited. The website designer will create the website and ensure it is visually appealing, responsive, and convenient for individuals to use on both cellphones and computers. During this development time period, the public health professional will be trained on the Recovery Self-Assessment Checklist and Mental Health America's problem-solving techniques for peer support groups. This phase will take approximately five months.



Phase 2: Website Pilot

Phase 2 of the program will be a pilot run of the website. A pilot is imperative to ensure that the website is ready to use before engaging participants. In order to get a student feedback of the survey, the public health professional will recruit health promotion students as volunteers for the pilot test. The pilot students will provide feedback about the user-friendliness of the website. They will also be able to provide constructive feedback about things that could be improved.

Phase 3: Develop Partnerships, Advertise, and Recruit Individuals

After the website is created, partners will be recruited. It is important that key stakeholders are engaged before the program is implemented[17]. The major partners for this program will be The UGA Disability Resource Center and The University of Georgia Health Center. While there are national averages for the population of students with chronic illness, the exact number of those with a chronic illness at a given university is unavailable. Thus, these are good partners, as they work closely with students experiencing chronic illness.

Phase 4: Implement and Monitor Program

The website will be live in stage four and students will be able to sign up for EPIC. In order to be able to post on the website, students will have to create an account and provide consent to be a part of the program.

1. **Individual Survey**
   After successfully creating a profile, the student will fill out a survey to help the facilitator gauge what the students hope to get out of the program. This survey will follow the structure of the Recovery Self-Assessment Checklist. This survey helps the facilitator prepare effective discussion questions that fit the needs of participants[26].

The assessment is based on five areas. Individuals rate each item based on if it is a well-developed practice, something that needs to be strengthened, or something that does not apply.

a. **Life Goals:** The questions in this area ask individuals about goals regarding education, employment, and symptom management. This is where students will be asked about what they want to get from the program.
b. **Involvement:** Questions will ask students if they have history of support group involvement and what programs or recourses they have used in the past to help cope with their condition. They will also be able to report any leisure activities or hobbies. This will help the public health professional develop ideas for meet up activities.
c. **Diversity of Options:** In this section of questions, students will report information about their communication skills. They can also express any personal needs.
d. **Choice:** In these questions, students will specify how engaged they plan to be in the program. They will provide the amount of time the plan to spend on the website daily or weekly.
e. **Individually Tailored Services:** Students will be able to report specific services they may need based on culture, interests, disease specific needs, and family and peer connections[26].

2. **Communication via threads**

After successfully submitting the survey, students will be given access to the threads. These posts will be created by the public health professional and will serve as communication starting points for the students. There will be general threads that allow students to discuss their challenges and coping mechanisms with chronic illness. A separate page on the website will have threads for specific diseases to allow students to discuss disease specific challenges. Students will also be allowed to submit their own thread ideas. The public health professional be able to approve these submissions before they are live on the website.

Threads will be based on Mental Health America's problem solving techniques for peer support groups[15].

a. **Identifying Needs of the Group and Specifying Problems:** The individual surveys will be assessed to see what potential types of topic students would most likely engage with in the forums. Potential topics may include:
    - Strategies for managing time with course work
    - How to approach professors about chronic illness
    - Self-care practices
    - Monitoring diet in the dining hall
    - Stigma associated with chronic illness
b. **Pinpointing Causes and Selecting a Feasible Approach:** The facilitator will research the potential causes of the reported challenges and will develop threads that create discussions about solutions to the problems. For example, if many students report struggling with time management, the

public health professional will know to create extensive content to help students mange time.

c. **Mediating Conversations:** The public health professional will post in the threads as needed to offer suggestions and potential solutions or resources.
d. **Assessing Outcomes:** The facilitator will continuously monitor the engagement of students. This will help design future threads that have increased engagement.

3. **Resource Availability**
   The website will also provide students with a comprehensive list of the resources available to them. The lack of awareness of resources is a major issue for this population. Even if the resources at a university are not extensive, students often report that they were never made aware about on-campus resources or their health-related personal rights. Another example of a reinforcing factor to help manage a chronic condition that this population should be aware about is if universities provide a transportation system to get students to and from doctor's appointments[2].

MARKETING PLAN

Overview

The marketing plan for the EPIC program requires collaboration between program staff and stakeholders. The main components of the marketing plan for EPIC are promotional materials and referrals from physicians. The EPIC program will include students attending the University of Georgia who have a chronic illness. Eligible students must be considered a full-time student and only undergraduate students will be eligible to enroll. The program will only include students with a diagnosed chronic illness. Recruitment for the program will begin after the website is created.

Posters and Flyers

The population of students with a chronic illness can be considered an invisible population, as many chronic conditions do not have outwardly physical symptoms. Strategic marketing must be done to target this population and bring awareness to the program. Informational posters and flyers will be hung in The University of Georgia Health Center and the Disability Resource Center. We predict these are places that students with chronic illnesses will commonly visit, so there will be heavy advertising in these facilities. Furthermore, promotional materials will be displayed in high traffic areas on UGA's campus such as dorms, Tate Student Center, The Main Library, The Miller Learning Center, and dining halls. This will help bring awareness of the program to the general population to help create awareness of the program through word of mouth. An example of an EPIC flyer is shown in *Figure 1.*

Physician Referral

Physicians and staff at the UGA Health Center and Disability Resource Center will refer students to the EPIC program. The project director will be responsible for working with these organizations to ensure that physicians and employees are regularly referring students to the program. To do this, the project director will provide employees with a detailed description of

the mission of EPIC and how students can enroll. Posters will be displayed in patient waiting rooms and medical treatment rooms to help facilitate conversations about EPIC between students and their healthcare providers.

Retention

To retain students in the program and keep them active on the EPIC website, enrolled students will be sent emails every week. These emails will include information about what is currently being discussed on the website as well as any other updates about the program. Furthermore, students will have the option to opt in to email or text notifications when someone responds to their post or comment on the website. The project director will be responsible for these marketing tasks.

Figure 4. Example of a flyer that will be displayed on campus.

Evaluation Overview

Based on the growing body of research about successful e-health interventions, we believe that the EPIC program will create a peer support system for students experiencing chronic illness at The University of Georgia. This program combines elements of the Theory of Planned Behavior and the Social Capital Theory to provide students the opportunity to engage with students experiencing similar challenges, which will ultimately help them develop skills to better manage their condition. Specifically, the EPIC program aims to (1) increase peer support; (2) reduce social isolation; (3) create self-efficacy for disease management.

The evaluation for the EPIC program will be conducted by the program director, program facilitator, and data analyst. The purpose of the evaluation of this program is to ensure that

EPIC students gain a stronger peer-support system and develop effective strategies to help manage their condition. Because of the online nature of this program, extensive evaluation must be conducted during the entire program to ensure usability with the technology. There are multiple purposes for using an online platform for this program. A major barrier to peer support among those with chronic illness is that many chronic conditions cannot be visibly seen, and college students commonly report having difficulty approaching others for support [7]. These students also report not having enough energy to participate in social interactions with their peers who do not have a chronic condition, which can lead to adverse mental health outcomes and social isolation [2]. For these reasons, the EPIC program has an online delivery. A detailed description of the evaluation plan is outlined below.

Formative Evaluation

Before the website is created, the needs of this population must be properly assessed. A thorough needs assessment will be conducted in the peer-reviewed literature. This needs assessment is meant to help the EPIC staff gain a stronger understanding of the role that peer support plays for this population and to find the strategies used in successful online, peer-led interventions. Furthermore, to gain a better understanding of the students experiencing chronic illness at the University of Georgia, the EPIC staff will have focus groups with key stakeholders before the start of the program. Specifically, the program staff will speak with students with chronic illnesses, the University of Georgia Health Center, and The Disability Resource Center. These resources currently do not offer peer support, but they likely have adequate knowledge about the needs of this population [28]. During these focus groups, EPIC staff will ask stakeholders about specific problems they would like to see addressed in the program. The staff will use the feedback from these stakeholders to design the program.

The EPIC website will have pre-developed online threads for students to engage in. It is imperative to the success of the program that these threads are easy to understand and contain beneficial content for the students. As mentioned previously, there will also be a place for students to submit threads. The usability of features of the website will be tested in a pilot test. The pilot test will have two phases. The first part of the pilot test will only test for website usability to ensure the website is accessible and useable. After the website is designed, one class of Health Promotion students at UGA will be given temporary logins to access the site. They will be given one class period to explore the site, interact with the features, and give feedback. Students will be asked to report about several characteristics of the site including user friendliness and visual appeal. After the first phase of the pilot test, the website will be edited as needed. The second part of the pilot test will recruit ten students at UGA with chronic illness. They will be able to access the site for one week and then be asked to provide feedback. The final adjustments to the site will be made based on this feedback. Then, students will be recruited to participate in EPIC.

Students who are interested in participating in the program must provide evidence of a chronic condition. The Center for Disease Control and Prevention's definition of chronic disease will be used: "conditions that last 1 year or more and require ongoing medical attention or limit activities of daily living or both [29]." Students' physicians will be given a direct link to submit their

document proving that they have a chronic illness, which will be sent privately to the program facilitator. Before being granted access to the website, participants will sign a virtual consent form. This consent form will ensure that students have read the website rules and agree to adhere to them. The first time that students log in to EPIC, they will be promoted to fill out demographic information and fill out a survey. Basic demographic information such as age, gender, year in school, major, and chronic condition will be used for later analysis.

After filling out basic demographic information, students will be promoted to take a survey. The EPIC program will be measured based on a pre and post survey structure. Two evidence-based surveys will be used to assess students' current state of peer support and social skills. Specifically, EPIC will use a combination of questions from two scales, The Self-Compassion Scale and The Multidimension Scale of Perceived Social Support [3]. The Self-Compassion Scale measures individuals' compassion towards others, their mindfulness in social interactions, and their level of indifference toward the suffering of others [30]. The Multidimension Scale of Perceived Social Support will be used to assess students current state of peer support. This scale asks questions about who students can rely on when they are in need and the extent that they seek support from friends. This scale ranges from one to seven where one "very strongly disagree" and seven is "very strongly agree" [31].

In addition to the questions from these scales, students will be asked specific questions about their experiences with technology and how comfortable they feel using technology to communicate with others. They will report how much time they typically spend each day and week using technology. Additionally, they will be asked questions about their knowledge of the resources available at the University of Georgia to help them manage their condition.

An overview of the formative evaluation of the EPIC Program is shown below in *Table 1*.

Table 1. Overview of Formative Evaluation

Evaluation Question	Timeline	Variables	Tasks	Details
Does this program properly address the needs of the population?	Feb. 2020	• Demographics of population • Types of chronic conditions	• Needs Assessment • Focus Groups	A needs assessment will be conducted and focus groups will be held with key stakeholders.
Does the program have a successful implementation platform?	March 2020-July 2020	• Successful website development • Student Engagement	• Successful Website • Pilot test	Health Promotion students will test the website for usability.

Process Evaluation

The EPIC program is structured around an online website, so attendance cannot be measured in the same way as an in person intervention. Thus, it imperative to ensure that students are engaging with the website on a regular bases. To measure website interaction, the amount of student engagement will be assessed at the end of each week. The data analyst will have access to how many post students reply to and how long they spend on the website. This measurement technique would be similar to measuring attendance for an in-person program. The data analyst will record how much time each students spend on EPIC peer week. Also, they will keep track of what types of threads students engage in the most. This data will be reported to the program director to help develop future threads. There will be a large amount of data reported through this site. The data analyst will be responsible for ensuring the data is organized on a bi-weekly basis.

The program director will check with the staff every Friday to ensure that the program is running as planned. The director will also be responsible for ensuring staff members are successfully fulfilling their roles. One hour meetings will be held on Friday afternoons to do this. Staff members will be responsible for reporting issues to the program director as they arise. Adjustments to the website will be made based on staff feedback.

The website will be continuously checked for appropriateness throughout the program. The staff will also check for any barriers on a regular basis. To do this, at the end of each week students will be prompted to complete a short five-question survey when they login to the website. These questions will help evaluate the effectiveness of the discussion post and students' current state of peer-support. This survey will be anonymous. Additionally, the website will have a specific submission box for students to submit any concerns or suggestions about how to improve the website. This submission box will always be available. Students will have the option to submit these concerns anonymously. If they do not submit anonymously, the project director will be able to directly contact the student if needed/

Table 2. Overview of Process Evaluation

Evaluation Question	Timeline	Variables	Evaluation Measure	Details
Is the internal structure of the program running successfully?	October 2020-October 2021	• Willingness of participants • Engaging threads	• Weekly Survey • Staff meetings	Students will be promoted with a five question survey at the end of each week.
Is the program appropriate and are barriers being assessed?	October 2020-October 2021	• Students providing feedback	• Submission Box • Staff feedback	The website will have a drobox where students can report concerns and improvements.

Are staff members filling their roles? Is data being properly managed?	October 2020-October 2021	• Staff motivation • Strong data analysis	• Staff meetings Bi-weekly data cleaning	Meetings will be held with staff members on a weekly basis.

Summative Evaluation

The first time that students log in to EPIC, they will be promoted to fill out demographic information and fill out a survey. Basic demographic information such as age, gender, year in school, major, and chronic condition will be used for later analysis.

After filling out basic demographic information, students will be promoted to take a survey. The EPIC program will be measured based on a pre and post survey structure. Two evidence-based surveys will be used to assess students' current state of peer support and social skills. Specifically, EPIC will use a combination of questions from two scales, The Self-Compassion Scale and The Multidimension Scale of Perceived Social Support [3]. The Self-Compassion Scale measures individuals' compassion towards others, their mindfulness in social interactions, and their level of indifference toward the suffering of others [30]. The Multidimension Scale of Perceived Social Support will be used to assess students current state of peer support. This scale asks questions about who students can rely on when they are in need and the extent that they seek support from friends. This scale ranges from one to seven where one "very strongly disagree" and seven is "very strongly agree" [31].

In addition to the questions from these scales, students will be asked specific questions about their experiences with technology and how comfortable they feel using technology to communicate with others. They will report how much time they typically spend each day and week using technology. Additionally, they will be asked questions about their knowledge of the resources available at the University of Georgia to help them manage their condition.

An overview of the formative evaluation of the EPIC Program is shown below in *Table 1*. At the end of the program, the students will take a modified version of the survey that was administered at the beginning of the program. This survey will include similar questions as the pre-survey, but they will be reworded in a way that reflects what they learned from the program. In additional to the questions asked in the pre-survey, the post survey will measure how impactful the program was. The impact outcomes that will be measured in the EPIC Program will include changes knowledge, skills, and self-efficacy. These outcomes will be measured through the survey that students will be promoted to take online immediate after the program is finished. Specifically, students will be asked questions about their level of social isolation, knowledge of recourses, skills to manage illness, and self-efficacy regarding social interaction, disease management techniques. The data analyst will be responsible for gathering and cleaning this data.

A survey will also assess outcome measures. One year after the program ends, students will be sent an email asking them to fill out a survey to measure how the program impacted them.

Ultimately, EPIC strives to provide students with the skill building techniques needed to form peer-support systems. This program is designed to provide long term benefits to the students. Ideally, this will help them better manage stress and their chronic conditions. This will be measured by questions about skill building, health outcomes, and behavior change. Lastly, an evaluation will be conducted to see if EPIC should continue to receive funding. This will be based on multiple factor including student feedback and engagement. Stakeholders will also be asked to provide feedback of the success of the program.

Table 3. Overview of Summative Evaluation

Evaluation Question	Timeline	Variables	Evaluation Measure	Details
Did the program yield the expected benefits?	November 2021	Changes in: • Knowledge • Skills • Self-efficacy	• Post program survey	Students will rate their current state of peer-support and disease management.
Should the program continue to receive funding?	November 2021	• Improvement • Sustainability • Stakeholder feedback	• Data analysis • Stakeholder feedback	Data will be analyzed to assess engagement and stakeholders will provide constructive feedback.
Did the program help students in the long term?	November 2022	• Skill building • Health outcomes • Behavior change	• Surveys • Data • Stakeholder feedback	A survey will be sent to students one year after the program.

BUDGET JUSTIFICATION

Personnel

Troy Bolton, MPH Project Manager– 3.6 calendar months (30% effort) in Years 1-2

Mr. Troy Bolton is an experienced health professional with a Master's of Public Health in Health Policy and Management. Mr. Bolton has 6 years of experience in health administration and

program development. He has ample experience facilitating programs that help improve mental health in adolescents and young adults. His responsibilities in past projects included overseeing all operations, recruiting partners, and working closely with the program evaluation team. While Mr. Bolton was in graduate school, he was a teaching assistant for a Chronic Disease Prevention course. He gained a deep understanding of the etiology, course, and treatment of chronic diseases through his teaching. Additionally, Mr. Bolton plays an integral role in a research group at The University of Georgia that studies the benefits of social interaction on mental health. Mr. Bolton's background in program management, mental health, and chronic disease make him a great candidate for the project director position of the EPIC program.

Mr. Bolton will carry out the following duties on the EPIC project:

- Year 1: As the project director, Mr. Bolton will be responsible for overseeing all operations of the program. Mr. Bolton will be responsible for building relationships with partners such as The University of Georgia Disability Resource Center and The University Health Center. He will ensure these organizations have ample knowledge about the EPIC program so they can properly educate prospective students. Furthermore, he will be responsible for distributing flyers and pamphlets to the partners. Mr. Bolton will work closely with the website designer to ensure the website has the key components that allow successful communication among students. Once the website goes live, Mr. Bolton will work with the public health professional to ensure the needs of the students are being properly met. He will work with the public health professional or to help facilitate the in person meet ups. Mr. Bolton will report any technical issues with the website to the website developer and make sure problems are resolved in a timely manner.

- Year 2: In year two of the program, Mr. Bolton will continue to work with the website developer and the public health professional to ensure the program is running smoothly. He will ensure partners are continuing to advertise the program to students. He will assist the public health professional in facilitating in person meet ups. At the end of the program, Mr. Bolton will ensure that the program is evaluated in an appropriate and timely manner.

Sharpay Evans MPH, MSW, Project Director– 3.6 calendar months (30% effort) in Years 1 – 2

Ms. Sharpay Evans has dual Master's degrees in Social Work and Public Health, and has 3 years of experience working as public health professional in an economically challenged community. As a part of her master's program, Ms. Evans helped facilitate a peer support group in a local high school. This group helped promote positive well-being among students. She also worked in a local hospital to provide cancer patients with peer support groups. These groups met on a weekly basis and the curriculum helped patients manage symptoms and develop strategies to cope with chronic illness. Ms. Evans also played a key role in a research group at The University of Georgia that studied how to effectively implement e-health interventions. In this research group, Ms. Evans helped design an app that allowed patients to order prescriptions from their

phone. Ms. Evans background in counseling, public health, chronic disease management, and e-health makes her qualified to be the project director in the EPIC program

Ms. Evans carry out the following duties on the EPIC project:

- Year 1: In the first year of the program Ms. Evans will work with Mr. Bolton to create threads for the website that will facilitate meaningful conversations among students. Ms. Evans will be responsible for ensuring that topic threads students submit are appropriate and provide a meaningful contributions to the discussions. In addition, Ms. Evans is responsible for continuously monitoring the threads to ensure that conversations are safe and do not include foul language. Ms. Evans will be responsible for providing students the opportunity to meet in person. She will design these meet ups based on feedback from the students. Ms. Evans will be responsible for attending these meetups to ensure safety of the students and to answer any questions.

- Year 2: In the second year of the program, Ms. Evans will continue to work with the staff to ensure students are having productive, safe conversations. Ms. Evans is responsible for reporting any issues to the program director and the website developer. Meet up opportunities will continue in year 2, and Ms. Evans will continue to be responsible for overseeing them.

Gabriella Montez MS, Software Developer– 1.8 Calendar months (15% effort) in Years 1 – 2
Ms. Gabriella Montez has a Master's of Science in Software Development. Ms. Montez has been working in the field of software and website development for over 6 years. Ms. Montez has extensive experience creating websites for non-profit organizations. She has expertise in theme development, website design, and website usability. Ms. Montez extensive knowledge about survey development, and specializes in online survey delivery. Ms. Montez's skills and experience make her an excellent choice for the software developer of the EPIC program.

Ms. Montez will carry out the following duties on the proposed project:

- Year 1: During the first year of the program, Ms. Montez be responsible for creating the EPIC website. She will coordinate with Mr. Bolton to ensure that the website has the necessary components. Ms. Montez is responsible for ensuring that Ms. Evans can create and publish threads, that students can submit threads, and that there is an easy thread monitoring system for Ms. Evans. Additionally, she will incorporate work from the graphic designer into the website. During the pilot test of the website, Ms. Montez will work closely with the staff members of the program to ensure the website is running how they desire. Additionally, Ms. Montez will be responsible for fixing any bugs and improving the site as needed.

- Year 2: In year two of the program, Ms. Montez will continue to monitor the site and fix any bugs as needed. After the mid-point evaluation of the program, Ms. Evans will work with the rest of the staff to make improvements based on survey feedback from students.

Chad Danforth, Data Analyst – 1.2 Calendar months (10% effort) in Years 1 – 2

Mr. Danforth is a business professional with a Master's of Business Administration in Health Data Analytics. He has over seven years work experience in the field of data analytics. Mr. Danforth has served as a program evaluator for several health promotion programs. He has done several evaluations for e-health based interventions. Furthermore, Mr. Danforth has extensive experience in evaluating public health surveys. His skills in data analytics and process evaluation make him the ideal candidate for the data analyst of the EPIC program.
Mr. Danforth will carry out the following duties on the proposed project:

- Year 1: Mr. Danforth will work with the program director to ensure the mid-point evaluation of the program is designed in strategic way that provides constructive feedback about the program. He will be responsible for evaluating the mid-point survey and working with staff to help make adjustments to the program based on student feedback.
- Year 2: At the end of the program, Mr. Danforth will be responsible for evaluating the program in a timely manner. He will be responsible for providing detailed descriptions of this findings to the staff members of the EPIC program.

Travel

In-State Travel in the Northeast Georgia Health District ($2,335 each year, Years 1 – 2)

- In Years 1 and 2, we request funds to reimburse EPIC staff members for travel to partners and meetings at the UGA rate of $.54 per mile. This will allow the team to travel an average of 80.0 miles per week.

Equipment & Supplies

Laptop computers ($3,00, Year 1)

- We request funds to purchase two computers ($1,500 per computer) at the start of the program. These computers will each be dedicated to the EPIC project and will be used for designing the website, delivering the program, communicating with partners and participants, and data analysis at the end of the program. The total computer cost in Year 1 is $3,000.

Pamphlets **(**$500 each year, Years 1 – 2)

- We request the funds to print pamphlets for prospective EPIC students. The pamphlets will be given to partners such as the Disability Resource Center and University Health Center. The total cost for pamphlets is $500 in year 1 and 2.

Printing and Photocopying ($500 Years 1 – 2)

- We request the funds for printing and photocopying expenses. These funds will be used to produce recruiting flyers, consent forms for the pilot test, and for project evaluation. The total cost for printing is $500 in year 1 and 2.

Dedicated Server for Website ($1,200 Years 1-2)

- We request the funds to purchase a dedicated server for the website. A dedicated server is necessary as it allows freedom to create the website as the staff desires. Additionally, there is added security by using a dedicated server, which is imperative

with the nature of this program. The total cost to purchase a dedicated server is $1, 200 each year.

Website Domain

- We request the funds to purchase a website domain. This will provide the program with a unique url. The total cost for a website domain is $70 per year.

Website Security

- We request the funds to purchase added security for the website. Added security will help protect the information of students and password protect the site. This costs $20 per month, which is $250 each year of the program.

Other Expenses

Ryan Evans, Consultant ($2,000, Year 1)

The EPIC Program will use the services of Mr. Ryan Evans. He is a graphic designer with ample skills in creative design and advertising.

- Year 1: Mr. Evans will be responsible for designing all of the graphics for the EPIC program. This will include the EPIC logo, flyers, pamphlets, and email signatures. He will work with the website designer to ensure the graphics fit the website layout.

Total personnel costs are $67,889 in year 1 and $69,926 in year 2, which include annual fringe benefit rates of 43% for personnel making $50,000 or more, and 53% for personnel making under $49,999 (the University negotiated benefit rate for TIAA-CREF).

Year 2 includes annual salary increase of 3%.

Indirect costs are $21,782 in year 1 and $19,478 in year 2 at the negotiated Facilities and Administration rate of 30% for UGA Cooperative Extension locations.

CONCLUSION

The EPIC program is designed to help increase peer support among students at The University of Georgia who are experiencing a chronic illness. Increased peer support helps reduce social isolation and increase symptom management techniques. Additionally, an online platform for communication provides students with an easy to access resource to connect with other students. EPIC will enable students with chronic illness at The University of Georgia to have self-efficacy with managing their chronic condition.

Table 3. EPIC Budget

Project Title:	EPIC: Enabling Peer-Support in College Students with Chronic Illness						
Period of Performance:	Feburary 1st 2020 to Janurary 2022						
Personnel	**Salary**		**% effort**	**Calendar Months**	**Year 1**	**Year 2**	**Total**
Troy Bolton	60,000		30%	3.6	18,000	18,540	36,540
Project Director	benefits @	43%			7,740	7,972	15,712
Sharpay Evans	49,000		30%	3.6	14,700	15,141	29,841
Counselor	benefits @	53%			7,791	8,025	15,816
Gabriella Montez	55,000		15%	1.8	8,250	8,498	16,748
Software Developer	benefits @	43%			3,548	3,654	7,201
Chad Danforth	55,000		10%	1.2	5,500	5,665	11,165
Data Analysist	benefits @	43%			2,365	2,436	4,801
Total Personnel					**67,894**	**69,930**	**137,824**
Equipment					**6,000**	**-**	**6,000**
Website software					6,000		6,000
							-
							-
Travel					**2,335**	**2,335**	**4,670**
Foreign							-
Domestic (in state milage)					2,335	2,335	4,670
Supplies					**5,550**	**2,650**	**8,200**
Computers X 2					3,000	-	3,000
Phamplets					500	600	1,100
Printing/Photocopying					500	500	1,000
Dedicated Server for Website					1,200	1,200	2,400
Website Domain					100	100	200
Website Security					250	250	500
Other Expenses					**2,000**	**-**	**2,000**
Ryan Evans					2,000	-	
Consultant (Graphic Designer)							
							-
							-
							-
Total Direct Costs					**83,779**	**74,915**	**158,694**
Indirect Costs @	26%				21,782	19,478	41,260
Total Costs					**105,561**	**94,393**	**199,954**

Works Cited

1. Kate L. Herts EW, Gary Maslow. College freshmen with chronic illness: A comparison with healthy first-year students. *Journal of College Student Development.* 2014;55(5):475-480.
2. Cole A, and Jones, A. . Supporting students with a chronic illness. University of Michigan. https://www.nyscha.org/wp-content/uploads/TH-6.02-Supporting-Students-with-Chronic-Illness.pdf. Accessed.
3. Katie Houman JS. The college experience for students with chronic illness: Implications for academic advising. *NACADA Journal.* 2013;33(1):61-70.
4. Royster Lynn MO. The chronic illness initiative: Supporting college students with chronic illness needs at DePaul University. *Journal of Postsecondary Education and Disability.* 2008;20(2):120-125.
5. Spencer G, Lewis S, Reid M. Living with a chronic health condition: Students' health narratives and negotiations of (ill) health at university. *Health Education Journal.* 2018;77(6):631-643.
6. College students living with a chronic condition. https://www.onlinecolleges.net/for-students/chronic-health-issues/. Published 2019. Accessed.
7. Tracy M. Anastas SMM, Ari D. Gleckman, and Adam T. Hirsh. Social influences on peer judgements about chronic pain. *The Journal of Pain.* 2018;20(6):698-705.
8. Druss G, Walker, E. . *Mental disorders and medical comorbidity.* Robert Wood Johnson Foundation2011.
9. *Mental Health and Chronic Disease.* Center for Disease Control and Prevention2012.
10. Heisler M. Building peer support programs to manage chronic disease: seven models for success. 2006.
11. Allison A Lewinski RAA, Allison A Vorderstrasse, Edwin B Fisher4, Wei Pan, Constance M Johnson.

Type 2 diabetes education and support in a virtual environment: A secondary analysis of synchronously exchanged social interaction and support. *Journal of Medical Internet Research.* 2018;20(2):1-15.

12. Vanessa C. Delisle STG, Danielle B. Rice, Alexander W. Levis, Lorie A. Kloda, Annett Ko¨rner, Brett D. Thombs. Perceived benefits and factors that influence the ability to establish and maintain patient support groups in rare diseases: A scoping review. 2016;10(1):283-289.
13. Jennifer Saylor SL, Michelle Ness, Jodie M. Ambrosino, Emily Ike, Melissa Ziegler, Christina L. Roth, and Christina Calamaro. Positive health benefits of peer support and connections for college students with type 1 diabetes mellitus. *The Diabetes EDUCATOR.* 2018;44(4):340-347.
14. Nisha Money MM, David Brown, Kathleen Kasper, Jessica Roeder, Paul Bartone, and Mark Bates. *Best Practices Identified for Peer Support Programs.* Defense Centers of Excellence2011.
15. *Support Group Facilitation Guide.* Meantal Health America Center for Peer Support2016.
16. Murray E, Burns J, May C, et al. Why is it difficult to implement e-health initiatives? A qualitative study. *Implement Sci.* 2011;6:6.

17. Ross J, Stevenson F, Dack C, et al. Developing an implementation strategy for a digital health intervention: an example in routine healthcare. *BMC Health Serv Res.* 2018;18(1):794.
18. The Theory of Planned Behavior. http://sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/BehavioralChangeTheories/BehavioralChangeTheories3.html. Published 2019. Accessed.
19. Corcoran N. Theories and models in communicating health messages. In:2007:5-31.
20. Qureshi I. Social Capital Theory. https://is.theorizeit.org/wiki/Social_capital_theory. Published 2017. Accessed.
21. Zhang K.
Theory of Planned Behavior: Origins, Development and Future Direction. *International Journal of Humanities and Social Science Invention.* 2018;7(5).
22. Knabe A. *Applying Ajzen's Theory of Planned Behavior to a Study of Online Course Adoption in Public Relations Education*, Marquette University; 2009.
23. *Theory of Planned Behavior.* Health Communication Capacity Collaborative.
24. HERE ACS. *Theories of Behavior Change.*
25. Eriksson M. Social capital and health--implications for health promotion. *Glob Health Action.* 2011;4:5611.
26. Peer Support Toolkit. Philadelphia Department of Behavioral Health and Intellectual Disabilities Services and Anchara Consulting Inc. http://dbhids.org/wp-content/uploads/1970/01/PCCI_Peer-Support-Toolkit.pdf. Published 2017. Accessed.
27. Web Developer. https://nationalcareers.service.gov.uk/job-profiles/web-developer. Accessed.
28. About the disability resource center. https://drc.uga.edu/site/content_page/about-us. Published 2019. Accessed.
29. About chronic diseases. https://www.cdc.gov/chronicdisease/about/index.htm. Published 2019. Accessed.
30. Pommier E, Neff KD, Toth-Kiraly I. The Development and Validation of the Compassion Scale. *Assessment.* 2019:1073191119874108.
31. Zimet D, Zimet, and Farley. *Multidimensional Scale of Perceived Social Support* 1998.