

Appiness: User Research Analysis

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Research Methods

To perform our user research, we administered surveys and conducted interviews with members of our target demographic. We delve further into the details of our research methods in later sections of this document.

Participants (Demographic)

As stated in our proposal, our target demographic consisted of students and young adults between the ages of 18 and 25. Users within this demographic would most likely own a smartphone and therefore be able to use an app such as the one we are developing. To find users in the target demographic, we used convenience sampling to survey and interview students in proximity to ourselves at Clemson University.

While all participants' names were kept anonymous, we collected pertinent demographic information as we conducted our research via our survey and interviews. Demographic information collected included age, gender identity, race/ethnicity, and college major. This allowed us to examine and dissect how different people of different backgrounds, race, gender, etcetera, deal with mental health on a personal basis. Such information will serve to strengthen the overall effectiveness of our mobile application for all people.

Survey/Questionnaire

We administered a survey to users in our target demographic in order to gather information about feature preferences and to learn more about our user's feelings towards, and experiences with, mental health. The questions asked were concerning their familiarity and level of comfort with mental health mobile applications and proposed app features. The survey was of our own design.

Survey Demographics

Eight participants completed the survey. Of the eight participants five were 22 years old, two were 21 years old, and one was 20 years old. There was an even 50-50 split between participant identified genders of male and female. For race/ethnicity, six participants identified themselves as white/caucasian, one identified as Black or African American, and one identified as Asian. Participants were from a variety of majors, with two being accounting majors, and the others consisting of packaging science, nursing, marketing, industrial engineering, genetics, and chemical engineering.

Purpose of the Survey

This survey primarily focused on users' opinions towards possible application features as well as how receptive they may be to using an app geared towards mental wellness. We have already determined several possible application features, and the survey allowed us to gauge user's initial reactions to these features and derive which features are most important and which are least important to our user base. The closed format of the survey would also be a way to gain easily quantifiable data about the users opinions and preferences.

Description

The survey we created consisted of questions within three main categories: demographic information, mental health, and app design/features. In the demographic section, we collected information pertaining to the participant's age, gender, and major as well as information regarding their use of smartphones and technology. In the mental health section, users were asked about their own mental health experiences and how an application may apply to them. Finally users were questioned about possible application features and then given room to

respond with any other comments or concerns. The exact questions administered through the survey are listed in Appendix A.

Analysis

To analyze the survey/questionnaire, we took all the data from each participant and viewed it in the form of pie charts and bar charts. This allowed us to easily find trends in data and clearly understand the needs of our users.

Procedure

The survey was distributed to the participants via Google Forms. There, the responses of the participants were recorded and analyzed to gather the needed information to complete the design of our application. Information that could be used to identify the participants, such as name, email, date of birth, etc. was not collected.

Structured Interviews as a means of Soliciting Expectations

While the administered questionnaires primarily gathered closed responses, we also conducted several structured interviews in order to gain a deeper understanding of our users' opinions towards certain features and mental wellness topics. Five interviews were conducted with participants in our target demographic.

Interview Demographics

Once the interviews were completed, the data was compiled and examined. Of the five participants, four were 22 years old and one was 21 years old. Two of the participants were female, while 3 were male. All of the participants identified as white/caucasian. None of the participants were in the same major; the majors of the interviewees included civil engineering, marketing and brand communications, biological sciences, mechanical engineering, and bioengineering.

Procedure

Each interview consisted of the interviewer sitting with the participant either in person or over a video call asking the questions listed in Appendix B. Participants were allowed to speak freely about each question and could respond to the questions in more detail than those that completed the questionnaire. Each interview took between ten and thirty minutes to complete depending on the depth and length of the responses from the participants. Interviewers did not stray from the script during the interviews.

Rationale

We decided to use structured interviews in addition to the survey/questionnaire, as it allowed us to gain more detailed information from our user group. While the questions asked by the interviewer were set, the participants were able to answer with more detail and perhaps better express their ideas and opinions on a subject than they may have been able to do within the survey. Participants could respond to a question with as much detail as they preferred, allowing us to gather data that may have been unexpected or unattainable through the survey alone.

Analysis

To analyze the interviews, we performed a general content analysis of the interview transcripts. From the transcripts we created a summary of each interview. Using the transcripts and summaries we were able to identify the opinions and feelings towards our proposed application of our users at a very high level. We made sure to note which topics or opinions were shared among multiple participants as well as where they each differed.

Findings from User Research

In this section, we will present and discuss our findings from our survey/questionnaire responses as well as our findings from our interviews. We will then list our key takeaways from the data.

Findings from Survey/Questionnaire Responses

In total, our questionnaire received eight responses. Using these responses, we were able to gather the data to determine the needs and wants of our target demographic.

Looking at basic questions related to mental health, as expected, more than half of the respondents currently struggle with stress, anxiety, depression, and/or other mental health issues. Of those that struggle with these issues, most of them experience it weekly and monthly, while some experience it daily. Seven out of eight of our respondents do not currently use an application to assist them in improving their mental health, with six out of eight saying that they will consider using an application to assist with improving their mental health.

Do you currently struggle or have ever struggled with stress, depression, anxiety, and/or other mental health issues?

8 responses

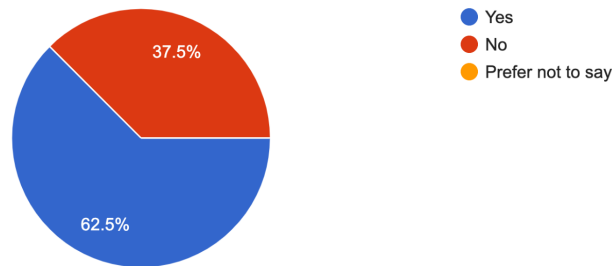


Figure 1: Percentage of respondents who struggle with mental health issues.

For questions directly related to our app design and feature set, we used, for the most part, questions based on the Likert scale. The likert scale is from 1-5: 1 being not beneficial at all and 5 being very beneficial. The following figures show the results from these questions.

How beneficial to your mental health would a daily affirmation or positive quote of the day feature be?

8 responses

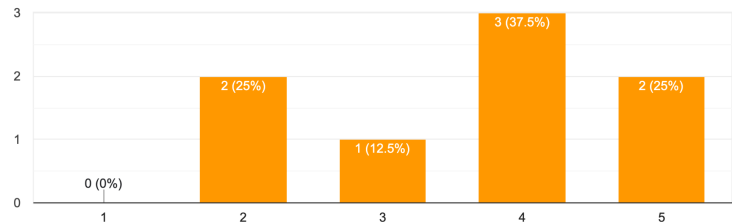


Figure 2: How beneficial would daily affirmations or positive quotes be?

How beneficial to your mental health would regular check-ins/interactions aimed at making you happier be?

8 responses

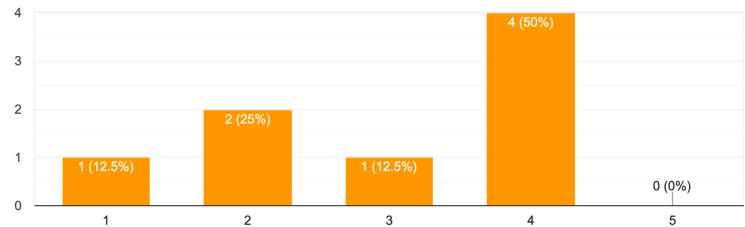


Figure 3: How beneficial would regular check-ins/interactions aimed at making you happier be?

How beneficial to your mental health would tips for improving your daily mental attitude and/or mood be?

8 responses

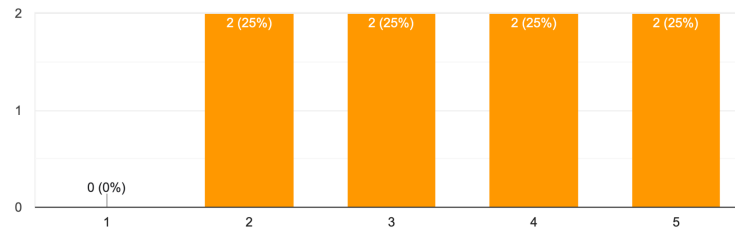


Figure 4: How beneficial would tips for improving your daily mental attitude be?

How beneficial to your mental health would it be if the application reminded you of your small daily accomplishments?

8 responses

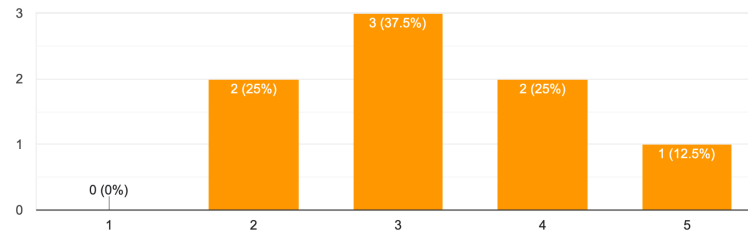


Figure 5: How beneficial would reminders of small daily accomplishments be?

How beneficial to your mental health would it be if the application reminded you of your larger/broader accomplishments?

8 responses

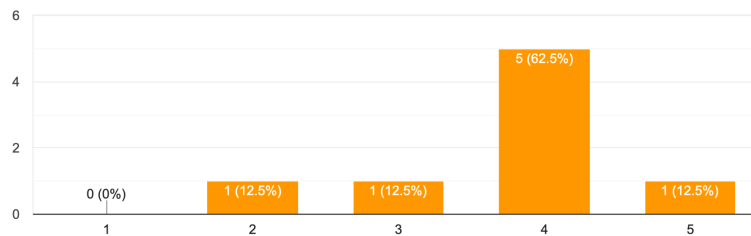


Figure 6: How beneficial would reminders of large/broader accomplishments be?

Out of the features we asked about, our respondents stated that the features that would be most important to them are a daily affirmations feature and a remembering positive accomplishments feature. We also found that the vast majority of participants would prefer only one notification per day from the application. Overall, these findings appear to support our app design concepts and feature set. Most of our targeted users deal with some type of mental health issue and currently do not have an application to assist them in improving their mental health. The Likert scale questions give us a gauge as to what features will be most important for users in their effort to improve their mental health.

Findings from Interviews

In order to have sufficient data for analysis each person in our group conducted at least one interview with someone in our target demographic. These interviews were recorded and then transcribed so that we could look over each interview and its key takeaways. A summary of each interview was created which expressed the main ideas and desires of each individual interviewed. This information was then analyzed by our group to determine which of our ideas the interviewees liked most and which of their ideas we could use to make our current concept of Appiness better.

Of the five interview participants only one currently uses a mental wellness application, however; the other four interviewees said that they would be open to using one if they found one that they enjoyed using. These answers depict the sparsity in mental wellness applications and shows that there is an existing need that our application could meet.

Most of the participants seemed to like the idea of some sort of daily check in system that is customizable to meet their specific needs. For example, Interviewee Four suggested that for his daily check-ins he would like “music suggestions, mental wellness/stress relief exercises, positive daily quotes” while Interviewee Two stated that they would like the app to “prompt me to provide or think about some things that I am thankful for”. These are two different approaches to the concept, but both would fulfill the same goal for each person.

Based on the interviews, customizability would be a huge benefit for our user base as Interviewee Three stated “it should be adaptable to the person and what their needs are”. Furthering this point, Interviewee One stated “everything manifests differently for every single person. So, I think an important feature would be customizability.” If users could customize the number of notifications they are getting, the look and feel of the app, and the types of check-ins they are getting, it would make each user feel as though the application was made specifically for them. This theme of maximizing personalization for each user was quite prevalent in each interview as most people want something different from an application of this nature. Overall, the findings from the interviews were fairly consistent with the questionnaire and both will help us design and develop a better program for our users.

Key Takeaways

- The majority of our target demographic struggle with stress, anxiety, depression, and/or other mental health issues and currently do not use an application to assist them in improving their mental health.
- The features of a mental wellness app that will provide the most benefits are daily affirmations/check ins and reflections on positive accomplishments.
- For the most part, users want a customizable experience as there is not a “one size fits all” solution to improving one's mental health as everyone is different.

What the findings mean to this project

Through a comprehensive analysis of our survey responses as well as our in-person interviews, we discovered that there is a desire for a mental health wellness mobile application. Especially considering that while all interviewees and surveyees expressed interest in mental health applications, only one interviewee and surveyee actually use such an app. There is a clear lack of positive interactions between users and their phones within our target population, which our app will aim to bridge.

During our analysis, we also learned which features to prioritize over others within the app itself. The features of daily affirmations consistently ranked as one of the higher priority features in both the survey and interviews. Specifically in the surveys administered, no surveyee gave it a 1 or “not beneficial at all” ranking. Furthermore, the remembrance of accomplishments also scored consistently high. Users also stated a preference for recalling larger and broader achievements over smaller, more menial accomplishments. But, most participants overall still expressed interest in having both in the application.

Specifically in our interviews, we were able to ask users more subjective questions, like how they thought the app should look and feel. In addition, as most solutions to mental health problems vary from person to person, our interviewees believed it best the application should be individualized as well. One interviewee suggested being able to customize the home screen of the application with cards; another interviewee suggested being able to change the primary colors of the application so that it can better reflect the user's personality. Everyone that was interviewed also had a different idea for how to implement regular check-ins and what they would like to be notified of on a daily basis. Every person's mental health is different, so making the experience as unique as possible for each user will only increase the effectiveness of our application.

Going forward, we have a clear vision of what users want in our application: a customizable mental health mobile application that provides users with a regular positive experience through check-ins or affirmations with the occasional reminder of major accomplishments. By following these themes, concepts, and ideas, Appiness will be able to deliver on our original goal of promoting and providing more positive interactions between people and their smartphones. However, further usability testing is needed to continue to refine the described features. But, with the crucial information obtained from our preliminary research, our group is equipped with the tools and ideas to develop the first iteration of Appiness.

Appendix A: Survey Questionnaire

1. What is your age?
2. What is your gender?
 - a. Male
 - b. Female
 - c. Other
 - d. I prefer not to answer
3. What ethnicity do you most identify with?
 - a. American Indian or Alaska Native
 - b. Asian
 - c. Black or African American
 - d. Native Hawaiian or Other Pacific Islander
 - e. White
 - f. Latino or Hispanic
4. What is your major?
5. Do you own a smartphone?
 - a. Yes
 - b. No
6. To what extent do you use a computer/smartphone in your daily activities?
 - a. Never
 - b. Rarely
 - c. Sometimes
 - d. Frequently
 - e. Always
7. Do you currently struggle or have ever struggled with stress, depression, anxiety, and/or other mental health issues?
 - a. Yes
 - b. No
 - c. Prefer not to say
8. If your answer to the previous question was yes, how often?
 - a. Daily
 - b. Weekly
 - c. Monthly
 - d. N/A
9. Do you use any applications to assist you with improving your mental health?

- a. Yes
 - b. No
- 10. Would you consider using an application to assist you with your mental health?
 - a. Yes
 - b. No
- 11. How beneficial to your mental health would a daily affirmation or positive quote of the day feature be?
 - a. On a scale from 1 to 5, with 1 being "Not beneficial at all" and 5 being "Very Beneficial"
- 12. How beneficial to your mental health would regular check-ins/interactions aimed at making you happier be?
 - a. On a scale from 1 to 5, with 1 being "Not beneficial at all" and 5 being "Very Beneficial"
- 13. How beneficial to your mental health would tips for improving your daily mental attitude and/or mood be?
 - a. On a scale from 1 to 5, with 1 being "Not beneficial at all" and 5 being "Very Beneficial"
- 14. How beneficial to your mental health would it be if the application reminded you of your small daily accomplishments?
 - a. On a scale from 1 to 5, with 1 being "Not beneficial at all" and 5 being "Very Beneficial"
- 15. How beneficial to your mental health would it be if the application reminded you of your larger/broader accomplishments?
 - a. On a scale from 1 to 5, with 1 being "Not beneficial at all" and 5 being "Very Beneficial"
- 16. Which of these features would you say is most important to you?
 - a. Daily Affirmations
 - b. Check-ins of Mood
 - c. Mental Health Tips
 - d. Remembering Positive Accomplishments
- 17. How many check-ins/notifications would you like to receive from the mental wellness app per day?
 - a. None
 - b. 1
 - c. Between 1 and 5
 - d. More than 5
 - e. More than 10
- 18. Are there any additional features you might like to see within the application that were not previously mentioned?
- 19. Are there any additional comments or concerns you would like to express?

Appendix B: Structured Interview Questions

- 1. What is your age?
- 2. What is Your gender?
- 3. What ethnicity do you most identify yourself with?
- 4. What is your major?
- 5. Do you currently struggle or have ever struggled with stress, depression and/or anxiety or other mental health issues?
 - a. If so, how often?
- 6. Do you think a mobile app could help better your mental health?
- 7. If you experience stress or anxiety, what are some of the sources?
- 8. Do you use any mental wellness applications currently, if so which ones?
- 9. Would you consider using an application to assist with your mental health? Why or why not?
- 10. What kinds of features would you like to see in a wellness application?
- 11. How often should a mental health application check-in/ provide assistance to its users? At what point will the app be annoying/ a nuisance? At what point is the app not doing enough?
- 12. What sort of daily check-ins or interactions would you like to see the application be able to do?

13. Which of these features would you like to see the most? Which should be re-worked or thrown out?
 - a. Daily affirmations
 - b. Check-ins of mood
 - c. Occasional mental health tips
 - d. Remembering positive accomplishments
14. Do you have any ideas or preferences on how you would like the application to look and feel?
15. What are general application features that you don't like?
16. Any other thoughts, comments or ideas?

Teamwork Section

Our team met on a weekly basis in order to create the questionnaire/interview outline, plan our research, and collaborate on the assigned paper. We held a group meeting in order to design our questionnaire and create the script for the user interviews. Each of us distributed the survey to several groups of Clemson students in order to elicit responses from as many people as possible. Each person in the group also conducted at least one interview and created the transcript of the interview for further analysis. We met on several occasions to discuss the main takeaways from the research and decide on the driving themes for each section of the paper. Then, we divided up the paper and had each person write different parts. Everyone then read over the entirety of the paper and made edits, comments, and changes as needed. Ashlyn completed the opening of the paper describing research methods, Zach completed the survey analysis and its corresponding section, Evan added Appendix A as well as completing the "What the findings mean to this project" section, and Charles completed the Interview findings section. Each of us then took the time to read the paper and suggest edits as well as make suggested or needed changes once the first draft of the paper was written. After editing, we all read the paper one final time before submitting.