Perceptions of COVID-19 in College Students: Effect on Emotional Well-Being

Mikayla N. Murphy
Georgia Southern University

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Perceptions of COVID-19 in college students: Effect on emotional well-being

An Honors Thesis submitted in partial fulfillment of the requirements for Honors in Jiann-Ping Hsu College of Public Health

By

Mikayla Murphy

Under the mentorship of Dr. Joanne Chopak-Foss

ABSTRACT
This study explores the connection between emotional well-being of college students and the COVID-19 pandemic. Many physical distancing practices have negatively affected emotional well-being, such as increased time alone and screen time. A purposive sample of convenience was utilized to collect information on the emotional well-being of a selected group of students at two time points: January through March 2020 and January/February 2021. Students from the Honors College were selected as the study population. The survey questions were administered electronically through Qualtrics software, Version: February 2021. Of the 101 survey responses obtained between January 27 and February 22, 2021, 89 surveys were fully completed (N= 89). Twenty-seven (30.3%) respondents indicated that there was no significant change in their emotional well-being January-March 2020 compared to January-February 2021, due to the COVID-19 pandemic. Twenty respondents (21.3%) indicated a positive change in emotional well-being, while forty respondents (44.9%) indicated a negative change in emotional well-being. The results of this study can assist colleges and university counseling services to ensure the positive, emotional and physical well-being of its students through increased campus and online resources.

Thesis Mentor:________________________
Dr. Joanne Chopak-Foss

Honors Director:_______________________
Dr. Steven Engel

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Jiann-Ping Hsu College of Public Health
Honors College
Georgia Southern University
Acknowledgements

I would like to thank my mentor, Dr. Chopak-Foss for her continued patience, support, and guidance throughout this project. With all of the changes during my thesis, she was always there to assist me and guide me in the right direction. I have been so lucky to have Dr. Chopak-Foss as my mentor and professor during my time as an undergraduate student, and I look forward to working with her more as I continue my education in my Master of Public Health program at Georgia Southern University.

I would also like to thank the students of the Honors College for their participation as my survey population in this project. I hope that the results of this study can help bring awareness to the emotional impact that the pandemic has had on students. Thank you to Dr. Steven Engel and Dr. Francis Desiderio for their support and for permitting me to use the Honors College students as my study population.
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Chapter 1

Introduction

Emotional Well-Being and College Students

According to the National Institutes of Health (2018), emotional wellness is defined as the ability to successfully handle life’s stresses and adapt to change and difficult times. The 2014 Cooperative Institutional Research Program Freshman Survey reported that the emotional well-being of incoming college freshmen was at the lowest it had ever been since the survey was first administered in the mid-1980s (Adams, 2015). One in 10 students also indicated that they felt frequently depressed, which was the highest level since 1988. Even in times when there was not a pandemic, college students are at an increased risk for low emotional well-being. The added stressors of living and attending college during a pandemic may put college students at an even higher risk (Li, et al., 2020).

Statement of the Problem

In March 2020, colleges nationwide switched to completely online learning in response to the COVID-19 pandemic. Many students were forced to go home as campuses closed. The sudden switch to online learning led to many stressful situations for college students, such as limited internet access, access to personal computers, and working from home with other family members or roommates. These stressors continued throughout the summer as summer term classes were all converted to online only, and as plans for the Fall 2020 semester and beyond continued to be uncertain. In addition to the...
school related stressors of remote learning and crowded dwellings due to state shelter-in-place orders, the added stress of family members losing jobs, or being essential workers and therefore putting themselves at risk daily, students or loved ones becoming sick, and other cultural and political stressors, potentially combined to have serious negative effects on college students’ emotional well-being. Furthermore, being in a new environment, these stressors may have had a larger effect on first year college students.

**Background and Significance**

Although chronic diseases have been on the rise in the United States and around the world over the past decades, the communicable disease COVID-19 was the most prominent public health crisis in 2020 and continued into 2021. There have been over 113 million cases worldwide and over 2.5 million deaths. The United States has had over 30 million cases and over 500,000 deaths.

The purpose of this study was to explore the emotional well-being of college students during the COVID-19 pandemic at two specific points of time: January- March 2020 and January/February 2021. The results of this study will be shared with the university’s counseling center to contribute to their knowledge of the ever changing emotional well-being of students. The results of the study will provide useful information as universities all over the world prepare for future public health crises.

**Research Questions**

The following questions guided the research:

1. How did the COVID-19 pandemic affect the emotional well-being in a sample of
college students at two different points in time?

2. Did the mean scores on the Emotional Well-Being Scale differ between January-March 2020 and January/February 2021?

Delimitations

The study identified the following as delimitations:

1. Ease of use and anonymity of electronic survey access
2. Information emailed to students regarding the study
3. Short survey length

Assumptions

The following assumptions were made in order to conduct the study:

1. The participants all speak English.
2. The participants all are current Honors College students.
3. All of the participants read and understood the consent form.
4. Students were as truthful as possible when recalling information.
5. Students provided correct demographic information.

Definition of Terms

Emotional Well-Being: Emotional wellness is the ability to successfully handle life’s stresses and adapt to change and difficult times (National Institutes of Health, 2018). Emotional well-being can also be defined as an overall positive state of one’s emotions, life satisfaction, sense of meaning and purpose, and ability to pursue self-defined goals.
Elements of emotional well-being include a sense of balance in emotion, thoughts, social relationships, and pursuits (National Institutes of Health, 2021).

**Purposive Sample of Convenience:** Individuals are selected based on their availability to the investigators rather than at random from the entire population. This type of sampling saves time and money, but the population may be limited. Extensive generalizations about the entire population cannot be concluded with this type of sampling. “Convenience samples are useful for collecting preliminary or pilot data, but they should be used with caution for statistical inference, since they may not be representative of the target population.” (LaMorte, 2016).

**Recall Bias:** Recall bias occurs when there are differences between what actually happened and what they remember and report to the investigators (LaMorte, 2016). Ways to reduce recall bias include using a control group, using a self-administered questionnaire for socially sensitive topics, and using questionnaires that ask specific questions. The investigators used a fully self-administered questionnaire and tried to make the questions as specific as possible. Unfortunately, using a control group was not possible since the exposure in this study was the COVID-19 pandemic. Everyone in the world has been somewhat affected by this pandemic, so no population group could have been chosen whose emotional well-being was not affected by the COVID-19 pandemic.
Chapter 2
Review of the Literature

Introduction

At the end of March and early April 2020, governments around the world implemented closures of restaurants, recreation venues, large event venues (sports, weddings, etc.) and physical distancing guidelines in order to reduce the spread of COVID-19. Some protective activities could still be done during this time of physical distancing, such as spending time in nature and exercising (Lades, et al., 2020). In an Irish population surveyed (Lades, et. al, 2020), many practices associated with physical distancing negatively affected emotional well-being, such as increased time alone and increased screen time. Working from home and school closures can also add to the negative emotional impact due to increased time with spouses or significant others and educating children. During outbreaks, scientists, governments, and healthcare professionals tend to focus on controlling the spread of the disease and greatly underestimate the social and psychological impact that the outbreak has on individual and collective levels, generating gaps in coping strategies and an increased burden of disease (Ornell, et. al, 2020).

Emotional Well-Being in College Students

During early adulthood, individuals go through many changes that may impact emotional well-being. Many college students are living on their own for the first time, sleep can be impacted by high academic or finance related stress, and many personal
relationships may be changing. These factors can negatively affect the emotional well-being of college students.

Colleges students with increased financial burden display significantly greater risk for mental health and subjective well-being problems, which suggests the need for financial interventions in this population (Newcomb-Anjo et. al, 2017). Sleep quality is greatly correlated to emotional well-being. University students who report poor sleep quality, causing excessive daytime sleepiness and fatigue, report negative impacts on mental health, well-being, and emotional aspects of quality of life (de Almeida Andrade et. al, 2020).

College students surveyed at Florida Agriculture and Mechanical University (FAMU) reported that taking place in social and physical activities outdoors helped to improve physical health as well as emotional well-being (Aly, 2020). Of students surveyed, 75% used outdoor physical activity to improve emotional well-being as well as symptoms of anxiety and depression (Aly, 2020). In a study completed in China, results suggested that reducing academic stress through participation in leisure activities is important in promoting positive emotional well-being (Zhang, 2017). Leisure activities had a stronger influence on the positive change in emotional well-being in female students. Goal persistence and positive reappraisal of goals, which are associated with participation in extracurricular activities, are related to higher levels of academic success and emotional well-being in college students (Guilmette, 2019). Past and present participation in extracurricular activities helps college students learn to set goals and shift interpretations of events from negative to positive.
Effects of COVID-19 Pandemic in College Students

In China, the onset of the Coronavirus pandemic led to a 74% decrease in emotional well-being (Yang & Ma, 2020). Factors affecting emotional well being included likelihood of contracting the disease (ex: living near the epicenter), extent of potential harm (ex: being elderly), and relational issues (ex: being in a marriage). Higher perceived knowledge about COVID-19 served as a protective factor of a person’s emotional well-being, regardless of actual knowledge. Higher perceived knowledge increased sense of control, which increased emotional well-being.

College students may experience more psychological effects from self- isolation and quarantine than the general population. A study done at the beginning of the pandemic in China (Li, et al., 2020) surveyed students once before the beginning of isolation and another time 15-17 days after the start of isolation. Questions focused on questions regarding the students’ mental health. Inadequate supplies (such as hand sanitizer), a higher year in school, and higher scores on the initial anxiety and depression survey increased anxiety and depression during the confinement period (Li, et al., 2020).

In Italy, the lockdown that lasted from March to May greatly increased psychological distress and worsened the quality of sleep of University students and staff (Marelli, et al., 2020). None of the participants reported symptoms of COVID-19. The population surveyed showed an increase in bed time hour, sleep latency (time it takes to fall asleep), time spent in bed, and wake up time. These factors led to worsening of sleep quality and insomnia symptoms. These symptoms were more significant in University students than in University staff.
Uncertainty for the future and anxiety are core feelings of the COVID-19 pandemic as well as the developmental phase of life that college students are currently experiencing. Another crucial feature of emerging adults is the low perception of risk of contracting COVID-19, which leads some emerging adults to engage in more risky behaviors than adults (Germani, et. al, 2020). College students could represent one of the main categories of people who are vulnerable to the effects of the pandemic.

Following the disruptions to college academics due to the COVID-19 pandemic, students reported much uncertainty regarding their academic futures. In addition to facing the emotional impact of COVID-19, students also had to face an abrupt transition to online learning. Female students reported worse emotional well-being than males and students of color reported worse emotional well-being than White students (Clabaugh, et al., 2021).

Summary

Overall, the current literature showed that the COVID-19 pandemic is affecting the emotional well-being of many college-aged students more negatively than other age groups. This decline in emotional well-being is due to factors such as lack of social interaction, increased screen time, fear of contracting the virus, lack of a regular schedule, and academic stress.
Chapter 3

Methodology

The purpose of this study was to explore the emotional well-being of college students during the COVID-19 pandemic at two specific points of time: January- March 2020 and January/February 2021. The results of this study will be shared with the university’s counseling center to contribute to their knowledge of the ever changing emotional well-being of students. This chapter discusses the study population and their privacy as well as the instrument and its scoring.

Participants

A purposive sample of convenience was utilized for this study. In order to work with the limits to in-person gatherings and to maintain social distancing guidelines, the survey was administered electronically through Qualtrics, Version February 2021. In order to maximize participation and recruit a large enough sample size, students in the Georgia Southern University Honors College were intentionally recruited. The author, Mikayla Murphy, is a student in the University Honors College and gained approval from the dean of the Honors College to use these students as the survey population (See Appendix C for Letter of Cooperation).

Protection of Human Subjects

In order to protect the privacy of human subjects, no identifying information such as name, email address, phone number, or date of birth was collected before, during, or after the time of the survey. This research was approved by Georgia Southern
Instrumentation

This study utilized the WHO-5 Well-Being Index, which was created in 1998 and is one of the most widely used questionnaires assessing well-being (Topp et al., 2015). It has been translated to 30 languages and used in over 500 studies all over the world. The WHO-5 was rated in the top 20 of well-being scales since it does not include disease-specific or treatment-specific aspects. The index also has a simple rating system and a specific point system to measure statistically significant changes. The WHO-5 index has been used effectively in a variety of fields, ranging from endocrinology to stress to gynecology to health economics. In stress-specific research, the WHO-5 has been used to research coping strategies and the link between environment and well-being. By utilizing this index, we can compare changes in emotional well-being from before COVID-19 was declared a pandemic by the World Health Organization in March 2020 to their current emotional well-being almost a year into the pandemic.

The survey included three sections: background information, five statements regarding emotional well-being prior to March 2020, and five statements regarding emotional well-being from the past two weeks before the survey was taken. The background information included: gender of student, age of student, race/ethnicity, year in college (freshman, sophomore, junior, senior). Both past and present well-being of the college students will be measured using the WHO-5 Well-Being Index. The five statements for both sections regarding emotional well-being were as follows: 1) I felt cheerful and in good spirits, 2) I felt calm and relaxed, 3) I felt active and vigorous, 4) I
woke up feeling fresh and rested, and 5) My daily life was filled with things that interest me. The participants gave their answers on a Likert scale with answer choices as follows: “All of the time”, “Most of the time”, “More than half of the time”, “Less than half of the time”, “Some of the time”, or “None of the time”.

Data Analysis: Scoring WHO-5 Index

A raw score was calculated for the five questions by assigning numbers to each answer choice. There were five questions, each with a score ranging from 0 to 5 points. The same questions were used to assess emotional well-being for January-March 2020 and again for the past two weeks. “All of the time” equaled 5 points, “Most of the time” equaled 4 points, “More than half the time” equaled 3 points, “Less than half the time” equaled 2 points, “Some of the time” equaled 1 point, and “None of the time” equaled 0 points. The raw score was calculated using the sum of these values. The minimum score, representing poor emotional well-being which would be answering 0 for all five questions at either time point, was 0. The maximum score, representing the best possible emotional well-being which would be answering 5 for all five questions, at either time point was 25. To obtain a percentage score, the raw score was multiplied by 4. In order to monitor changes in well-being, the percentage score was used. Based on the World Health Organizations’ findings a 10% difference indicates a significant change in emotional well-being (World Health Organization Regional Office for Europe, 1998).

Microsoft Excel, version 16.0 and IBM SPSS for Windows, Version 27.0 were used for data analysis in this study.
Chapter 4

Results

Purpose

The purpose of the study was to explore the connection between the emotional well-being of college students and the COVID-19 pandemic. Understanding the relationship between emotional well-being during a public health crisis is important as colleges and universities move forward to plan for future semesters.

A total of 101 survey responses were obtained between January 27 and February 22, 2021, with 89 surveys fully completed and usable for data analysis (N=89).

Description of the Sample

The final sample of completed surveys consisted of 89 undergraduate Georgia Southern University students who are part of the Honors College. The mean age of the sample was 20.65 years old with a standard deviation of 3.98 years. The majority of respondents were female (79.8%) and/or Caucasian (71.9%) (See Table 1). This aligns with the majority female (71.1%) and Caucasian (67.0%) population that currently makes up the Honors College population (see Appendix F).
Table 1
*Demographic Characteristics of Research Participants*

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>N: 89</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>9</td>
<td>10.1%</td>
</tr>
<tr>
<td>19</td>
<td>24</td>
<td>27.0%</td>
</tr>
<tr>
<td>20</td>
<td>28</td>
<td>31.5%</td>
</tr>
<tr>
<td>21</td>
<td>14</td>
<td>15.7%</td>
</tr>
<tr>
<td>22+</td>
<td>14</td>
<td>15.6%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>18.0%</td>
</tr>
<tr>
<td>Female</td>
<td>71</td>
<td>79.8%</td>
</tr>
<tr>
<td>Non-Binary</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>11</td>
<td>12.4%</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>Bi-Racial</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>64</td>
<td>73.0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>11</td>
<td>11.2%</td>
</tr>
<tr>
<td><strong>Year in School</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>15</td>
<td>16.9%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>20</td>
<td>22.5%</td>
</tr>
<tr>
<td>Junior</td>
<td>28</td>
<td>31.5%</td>
</tr>
<tr>
<td>Senior</td>
<td>26</td>
<td>29.2%</td>
</tr>
</tbody>
</table>

**RQ 1**: How did the COVID-19 pandemic affect the emotional well-being in a sample of college students at two different points in time?

**Responses for Emotional Well-Being Items**

Frequencies were run for each of the emotional well-being items. The respondents reported that at the first time point (January-March 2020), 33 (37.1%) felt
cheerful most of the time. This decreased at the second time point, with only 24 (27.0%) respondents indicating that they felt cheerful most of the time.

From 2020 to 2021, three categories (Cheerful, Active, and Rested) saw an increase in respondents answering “Some of the time”, and all five categories saw an increase in respondents answering “None of the time”. All five categories also saw a decrease in respondents answering “All of the time” and “Most of the time” (See Tables 2 & 3).

Table 2

*Frequencies of Responses to each Emotional Well-Being Item January to March 2020*

<table>
<thead>
<tr>
<th>Variable</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>More than half the time</th>
<th>Less than half the time</th>
<th>Some of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>n</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>I felt cheerful and in good spirits.</td>
<td>6</td>
<td>33</td>
<td>27</td>
<td>10</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>6.7%</td>
<td>37.1%</td>
<td>30.3%</td>
<td>11.2%</td>
<td>13.5%</td>
<td>1.1%</td>
</tr>
<tr>
<td>I felt calm and relaxed.</td>
<td>1</td>
<td>24</td>
<td>27</td>
<td>24</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1.1%</td>
<td>27.0%</td>
<td>30.3%</td>
<td>27.0%</td>
<td>9.0%</td>
<td>5.6%</td>
</tr>
<tr>
<td>I felt active and vigorous.</td>
<td>9</td>
<td>22</td>
<td>19</td>
<td>22</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>10.1%</td>
<td>24.7%</td>
<td>21.3%</td>
<td>24.7%</td>
<td>12.4%</td>
<td>6.7%</td>
</tr>
<tr>
<td>I woke up feeling fresh and rested.</td>
<td>3</td>
<td>23</td>
<td>20</td>
<td>17</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>3.4%</td>
<td>25.8%</td>
<td>22.5%</td>
<td>19.1%</td>
<td>21.3%</td>
<td>7.9%</td>
</tr>
<tr>
<td>My daily life was filled with things that interest me.</td>
<td>15</td>
<td>30</td>
<td>21</td>
<td>11</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>16.9%</td>
<td>33.7%</td>
<td>23.6%</td>
<td>12.4%</td>
<td>11.2%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>
Table 3
*Frequencies of Responses to each Emotional Well-Being Item January/February 2021*

<table>
<thead>
<tr>
<th>Variable</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>More than half the time</th>
<th>Less than half the time</th>
<th>Some of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>I felt cheerful and in good spirits.</td>
<td>2</td>
<td>24</td>
<td>29</td>
<td>16</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2.2%</td>
<td>27.0%</td>
<td>32.6%</td>
<td>18.0%</td>
<td>14.6%</td>
<td>5.6%</td>
</tr>
<tr>
<td>I felt calm and relaxed.</td>
<td>2</td>
<td>17</td>
<td>24</td>
<td>22</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2.2%</td>
<td>19.1%</td>
<td>27.0%</td>
<td>24.7%</td>
<td>21.3%</td>
<td>5.6%</td>
</tr>
<tr>
<td>I felt active and vigorous.</td>
<td>6</td>
<td>17</td>
<td>17</td>
<td>16</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>6.7%</td>
<td>19.1%</td>
<td>19.1%</td>
<td>18.0%</td>
<td>19.1%</td>
<td>16.9%</td>
</tr>
<tr>
<td>I woke up feeling fresh and rested.</td>
<td>2</td>
<td>16</td>
<td>18</td>
<td>15</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>2.2%</td>
<td>18.0%</td>
<td>20.2%</td>
<td>16.9%</td>
<td>27.0%</td>
<td>15.7%</td>
</tr>
<tr>
<td>My daily life was filled with things that interest me.</td>
<td>10</td>
<td>21</td>
<td>20</td>
<td>21</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>11.2%</td>
<td>23.6%</td>
<td>22.5%</td>
<td>23.6%</td>
<td>16.9%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

*RQ2: Did the mean scores on the Emotional Well-Being Scale differ between January-March 2020 and January/February 2021?*

Mean scores and standard deviations were calculated for both time points for the total sample. For every item on the Well-Being Index, the mean score decreased from 2020 to 2021. This indicates a decline in each category of emotional well-being that was measured. For every item, the standard deviation increased from 2020 to 2021. This indicates that the responses for 2021 were more spread out than responses for 2020 (See Table 4).
Table 4

*Mean Response Score to each Emotional Well-Being Item for January to March 2020 and January/February 2021*

<table>
<thead>
<tr>
<th>Response</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>I felt cheerful and in good spirits.</td>
<td>M= 3.06</td>
<td>M=2.66</td>
</tr>
<tr>
<td></td>
<td>SD= 1.19</td>
<td>SD= 1.24</td>
</tr>
<tr>
<td>I felt calm and relaxed.</td>
<td>M= 2.66</td>
<td>M= 2.36</td>
</tr>
<tr>
<td></td>
<td>SD= 1.17</td>
<td>SD= 1.23</td>
</tr>
<tr>
<td>I felt active and vigorous.</td>
<td>M= 2.75</td>
<td>M= 2.27</td>
</tr>
<tr>
<td></td>
<td>SD= 1.39</td>
<td>SD= 1.55</td>
</tr>
<tr>
<td>I woke up feeling fresh and rested.</td>
<td>M= 3.26</td>
<td>M= 2.04</td>
</tr>
<tr>
<td></td>
<td>SD= 1.37</td>
<td>SD= 1.42</td>
</tr>
<tr>
<td>My daily life was filled with things that interest me.</td>
<td>M= 3.26</td>
<td>M= 2.84</td>
</tr>
<tr>
<td></td>
<td>SD= 1.31</td>
<td>SD= 1.35</td>
</tr>
</tbody>
</table>

**Recommendations for Administration of the Major (ICD-10) Depression Inventory**

A total score below 13 total points indicates poor emotional well-being and is an indication for further testing for depression. For raw scores of 13 points or below and/or a score of 0 or 1 for any of the individual items, the Psychiatric Research Unit in the World Health Organization’s Collaborating Centre in Mental Health, recommends administration of the Major (ICD-10) Depression Inventory. In the current study, there was a mixture of both the less than 13 points and scores that answered 0 or 1 but did not total to less than 13 points. Overall, sixty-one participants (68.5%) should be recommended for administration of the Major (ICD-10) Depression Inventory.

A total of twenty-one participants (23.6%) had both scores less than 13 points, as well as answering 0 or 1 to any questions only for both time periods. Of these twenty-one
participants, two participants (2.3%) had scores that were under 13 points, but only answered 0 or 1 to questions for 2021. One of these participants answered 0 or 1 to all questions for 2021, and the other answered “Some of the time”, which equals 1 point, to “I woke up feeling fresh and rested”. (See Table 5)

Table 5

*Frequencies of Responses for Depression Inventory Testing (N=89)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Only Score &lt;13</td>
<td>3 (3.4%)</td>
<td>2 (2.3%)</td>
<td>1 (1.1%)</td>
</tr>
<tr>
<td>Only Answer 0 or 1</td>
<td>0 (0.0%)</td>
<td>3 (3.4%)</td>
<td>3 (3.4%)</td>
</tr>
<tr>
<td>Both</td>
<td>10 (11.2%)</td>
<td>18 (20.2%)</td>
<td>21 (23.6%)*</td>
</tr>
</tbody>
</table>

*Two individuals in this category had scores for both time periods that were under 13 points, but only answered 0 or 1 for 2021. They did not answer any questions for 2020 with 0 or 1.*

**Bivariate Analysis**

A paired-sample t-test was conducted to compare emotional well-being of college students during January-March 2020 and January-February 2021. The results from the January-March 2020 survey (M= 14.2, SD= 5.5) and January-February 2021 survey (M= 12.2, SD= 5.7) indicate that the COVID-19 pandemic has resulted in a negative impact on emotional well-being of Georgia Southern Honors College students surveyed, $t(88) = 2.46$, $p < .016$. Using a five percent significance threshold, it was found using a two-tailed paired t-test that the two populations were significantly different. Considering the results of the t-test, we can reject the null hypothesis and accept the
hypothesis that the COVID-19 pandemic has had a negative effect on the emotional well-being of the Georgia Southern Honors College students surveyed.

Table 6

*Paired T-Test between Emotional Well-Being WHO-5 Scores by Time Period*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>14.2</td>
<td>12.2</td>
</tr>
<tr>
<td>SD</td>
<td>5.5</td>
<td>5.7</td>
</tr>
<tr>
<td>t-test</td>
<td>2.46</td>
<td></td>
</tr>
</tbody>
</table>

*** p < .016 , N= 89

Summary

Each test has a minimum score of zero and a maximum score of twenty-five. The January through March 2020 tests had a mean score of 14.2 points with a standard deviation of 5.5 points (M= 14.2, SD= 5.5). The January through February 2021 tests had a mean score of 12.2 points with a standard deviation of 5.7 points (M= 12.2, SD= 5.7).

Twenty-seven respondents (30.3%) indicated that there was no significant change in their emotional well-being January-March 2020 compared to January-February 2021. Twenty respondents (21.3%) indicated a positive change in emotional well-being, while forty respondents (44.9%) indicated a negative change in emotional well-being. Overall, sixty-one (68.5%) participants should be recommended for administration of the Major (ICD-10) Depression Inventory.
Discussion

In an effort to document the effects of the COVID-19 pandemic in the lives of college students, this study provides a snapshot of college students’ emotional well-being from January-March 2020 compared to January-February 2021. The purpose of the study was to explore the connection between the emotional well-being of college students and the COVID-19 pandemic. One hundred and one surveys were started with 89 being fully complete and usable for data analysis. Of the 89, 40 (44.9%) of respondents indicated a statistically significant decrease in emotional well-being from January-March 2020 to January-February 2021. Sixty-one out of the 89 respondents (68.5%) should be recommended for additional depression screening based on the recommendations of the World Health Organization guidelines for this survey instrument.

Consistent with previous research on emotional well-being in college students during COVID-19 (Clabaugh, et al., 2021, Lades, et al., 2020, Li, et al., 2020, Yang, et al., 2020, ), a significant proportion of college students have experienced negative impacts on their emotional well-being. Earlier research has also shown that college students are at a particularly high risk for negative emotional and health outcomes (Adams, 2015) which may persist or worsen due to the pandemic.

Limitations of the Study

Although the races, genders, and ages of the students varied, the sample was from a small section of Georgia Southern University, the University Honors College. The
sample size included 89 participants. The Georgia Southern University Honors College has 805 students, so this was a small representation of those students (11.1%). Georgia Southern University has over 20,000 enrolled students, so this small sample size was not representative of the University as a whole and therefore may not be generalizable to the other students in the Honors college or other undergraduate students at the university.

In addition, student recruitment was conducted by email, which indicates that they have access to technology and the internet. This may not be representative of individuals without access to the internet, email, or other forms of technology. These results are a snapshot of the emotional well-being of these students, which can be affected on a day-to-day basis. Results may also be affected by recall bias, as some of the information that was asked about was about emotional well-being from over a year ago, a year in which many changes have affected college students and the world as a whole. Students may have unintentionally provided inaccurate information due to recall bias because of the nature of asking questions regarding emotional well-being from over a year ago.

Conclusions

The study shows that there has been a negative effect on the emotional well-being of Georgia Southern Honors College students during the COVID-19 pandemic. In conclusion, social and physical distancing measures, as well as universities transitioning to an online or hybrid class format was necessary for limiting infection in the general public. These measures have saved innumerable lives over the course of the past year but may have had a negative impact on the emotional well-being and mental health of many groups, including the Honors College students who participated in this study. These
results can help universities and student programming, specifically Georgia Southern University and the University Honors Program, plan for these impacts in future semesters.
References


https://doi.org/10.3389/fpsyg.2020.567505

https://doi.org/10.1016/j.lindif.2019.04.006


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https://www.euro.who.int/__data/assets/pdf_file/0016/130750/E60246.pdf


Appendix A: Participant Consent Form
Informed Consent for

Perceptions of COVID-19 in college students: Effect on emotional well-being

My name is Mikayla Murphy and I am a senior in the Bachelor of Science in Public Health major at Georgia Southern University. I am a University Honors Program student and this research is in partial completion of the requirements for my honors thesis. This research will be completed as part of the requirements for the Bachelor of Science in Public Health in the Department of Health Policy and Community Health in the Jiann-Ping Hsu College of Public Health.

The purpose of this study is to explore the connection between the emotional well-being of college students and the COVID-19 pandemic. Understanding the connection is important as colleges and universities move forward to plan for future semesters. The results of this study will be shared with the Office of Health Education and Promotion, and University Counseling center. The results will be used also to inform the work of these two offices as they create resources to assist students with their emotional health.

Participation in this research will include answering a 14-question survey of questions inquiring about emotional well-being from January-March 2020 and the same questions for the two weeks prior to completing the survey. This study will take approximately 5-10 minutes to complete.
The discomforts and risks associated with this survey may consist of sensitive issues regarding emotional well-being. I understand that medical care is available in the event of injury resulting from research but that neither financial compensation nor free medical treatment is provided. If you wish to seek assistance from the Counseling Center after the conclusion of this study, the phone number is (912) 478-5541.

The benefits to you as a participant include further exploring the effects of the COVID-19 pandemic on college-age students’ emotional well-being. The benefits to society include the ability for Georgia Southern University and other universities to further understand the effects of the COVID-19 pandemic on the emotional well-being of college students.

Only Ms. Murphy and her advisor will have access to the results of this survey. Answers will be stored in a password protected file and will be destroyed three years after the conclusion of this research. The advisor (Dr. Chopak-Foss) will be responsible for these records after Ms. Murphy has left the university.

Participants will not be identified by name in the data set or any reports using information obtained from this study, and your confidentiality as a participant in this study will remain secure. Subsequent use of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.

You have the right to ask questions and have those questions answered. If you have questions about this study, please contact the researcher named above or the researcher’s
faculty advisor, whose contact information is located at the end of the informed consent. For questions concerning your rights as a research participant, contact Georgia Southern University Institutional Review Board at 912-478-5465 or irb@georgiasouthern.edu.

Participation in this study is completely voluntary. You may end your participation at any time and you do not have to answer any questions you do not want to answer. You will not be penalized for not participating in this study. You can decide at any time that you would no longer like to participate further and you will receive no penalty or retribution.

You must be 18 years of age or older to consent to participate in this research study.

The consent form may be printed for your keep for your records. This project has been reviewed and approved by the GS Institutional Review Board under tracking number H21109.

Title of Project: Perceptions of COVID-19 in college students: Effect on emotional well-being
Principal Investigator: Mikayla Murphy (mm18532@georgiasouthern.edu)
Research Advisor: Dr. Joanne Chopak-Foss (jchopak@georgiasouthern.edu, 912-478-1530)

Please select an option below to indicate whether or not you agree to participate in this research:
• Yes, I read the terms above and consent to participate in this research.

• No, I do not consent to participate in this research

Appendix B: Participant Recruitment Email

Hello Georgia Southern Honors College students!
The university Honors College, in conjunction with Honors College student, Mikayla Murphy, and the Jiann-Ping Hsu College of Public Health, would like your help in completing a survey for Ms. Murphy’s honors thesis entitled “Perceptions of COVID-19 in college students: Effect on emotional well-being”.

The purpose of this study is to explore the connection between the emotional well-being of college students and the COVID-19 pandemic. Understanding the connection is important as colleges and universities move forward to plan for future semesters. The results of this study will be shared with the Office of Health Education and Promotion, and University Counseling center. The results will be used also to inform the work of these two offices as they create resources to assist students with their emotional health.

Participation in this research will include answering a 14-question survey of questions inquiring about emotional well-being from January-March 2020 and the same questions for the two weeks prior to completing the survey. This study will take approximately 5-10 minutes to complete.

Although you are not required to complete this survey, your assistance in this research could help to improve resources made available on the Georgia Southern campus. The benefits to you as a participant include further exploring the effects of the COVID-19 pandemic on college-age students’ emotional well-being. The benefits to society include the ability for Georgia Southern University and other universities to further understand
the effects of the COVID-19 pandemic on the emotional well-being of college students. Participation in this study is completely voluntary. You may end your participation at any time and you do not have to answer any questions you do not want to answer. You will not be penalized for not participating in this study. You can decide at any time that you would no longer like to participate further and you will receive no penalty or retribution.

The link to the survey is below. Thank you for your time, and your participation is greatly appreciated!

Appendix C: Letter of Cooperation from the Honors College
December 8, 2020

Dear Institutional Review Board,

Mikayla Murphy has the permission of the Honors College at Georgia Southern University to survey its students in her research for her Honors College thesis, “Perceptions of COVID-19 in college students: Effects on emotional well-being.”

The Honors College will send the survey on Ms. Murphy’s behalf, and she will not have access to our mailing list or student data.

Thank you,

[Signature]

Steven Engel, Ph.D.
Dean, Honors College

Appendix D: Research Certifications
Georgia Southern University

Under requirements set by:

3 - Refresher Course

Has completed the following CITI Program course:

Joanne Chopak-Foss

This is to certify that:

Record ID: 33835969
Expiration Date: 03-Jan-2023
Completion Date: 04-Jan-2020
Appendix E: Instrument

The purpose of this survey is to explore perceptions about COVID-19 and its effect on the emotional well-being of college students. Participation in this research will include completion of questions related to general emotional well-being prior to March 2020 and perceptions of emotional well-being from the past two weeks. According to the National Institutes of Health (2018), emotional well-being is defined as the ability to successfully handle life’s stresses and adapt to change and difficult times.

This study has received approval from the University Institutional Review Board; H21109

Please address any questions concerning this survey or the larger study, please contact Mikayla Murphy at mm18532@georgiasouthern.edu at Georgia Southern University.

Background Information

Demographics: Please select the following that apply.

1. Gender:
   ___ Male
   ___ Female
   ___ Non-Binary
   ___ Other

2. Age: ____

3. Race:
   ___ African American
   ___ Asian
   ___ Bi-racial
   ___ Caucasian
   ___ Hispanic
   ___ Non-White Hispanic
4. Class:

___ Freshman
___ Sophomore
___ Junior
___ Senior

**Directions:** For each of the first five statements below, select the response which best describes your emotions from January to March 2020. Example: If you felt cheerful and in good spirits more than half of the time January to March 2020, click the box with the number 3.

<table>
<thead>
<tr>
<th>January to March 2020:</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>More than half of the time</th>
<th>Less than half of the time</th>
<th>Some of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I felt cheerful and in good spirits</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2. I felt calm and relaxed</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3. I felt active and vigorous</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4. I woke up feeling fresh and rested</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5. My daily life was filled with things that interest me</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**Directions:** For each of the five statements below, select the response which best describes your emotions over the last two weeks.

<table>
<thead>
<tr>
<th>Over the last two weeks:</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>More than half of the time</th>
<th>Less than half of the time</th>
<th>Some of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have felt cheerful and in good spirits</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2. I have felt calm and relaxed</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>3. I have felt active and vigorous</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>4. I woke up feeling fresh and rested</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>5. My daily life has been filled with things that interest me</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Thank you for your participation!
### Appendix F: Demographics of Honors College Students

**Appendix**

*Demographics of Georgia Southern University Honors College*

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Sample</td>
<td>805</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>218</td>
<td>27.1%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>212</td>
<td>26.3%</td>
</tr>
<tr>
<td>Junior</td>
<td>181</td>
<td>22.5%</td>
</tr>
<tr>
<td>Senior</td>
<td>194</td>
<td>24.1%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>136</td>
<td>16.9%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>539</td>
<td>67.0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>50</td>
<td>6.2%</td>
</tr>
<tr>
<td>Other Non-White</td>
<td>80</td>
<td>9.9%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>233</td>
<td>28.9%</td>
</tr>
<tr>
<td>Female</td>
<td>572</td>
<td>71.1%</td>
</tr>
<tr>
<td>Non-Binary</td>
<td>Unknown</td>
<td></td>
</tr>
</tbody>
</table>

Age data is not collected by the University Honors College because the population is overwhelmingly traditional aged 18-22 year old students.