

Emerald Lozada

Submission to the School of Liberal Studies and Continuing Education

in partial fulfillment of the requirements

for the degree of Bachelor of Arts in Liberal Studies

Purchase College

State University of New York

Fall 2022

Instructor: Mara Horowitz

Abstract

Background: Interpersonal relationships have extended into social media, providing more ways to communicate with others, find new interests, and get inspired. College students are the largest demographic of social media users. With mental health concerns on the rise among college students, it is important to understand where the connection is, if there is at all.

Objective: This study aims to research how college students are affected by their social media use to highlight potential ways to change habits and treat concerns surrounding mental health.

Design and Method: This research was done through a thorough review of literature from the Purchase College Library database. The articles collected are from 2012 to 2021. The research for this capstone was qualitative, however, the studies used were qualitative and quantitative. A review of results from 10 studies was done to answer the research question. The main research questions are: *How has social media affected the mental health of college students? Why do college students use social media? Does the frequency of social media use influence mental health? How likely are college students to seek mental health intervention after social media use?*

Results: The significance of this study is that most college students use social media, and some are still navigating their mental health. Research is essential to investigate the connection between mental health and social media.

Conclusions: College students use social media for various reasons. They can turn to social media for emotional support, suppression, or just to interact with other people. The findings suggest that social media does not have a direct effect on college students with existing mental health concerns, nor does it cause mental health problems to arise. The findings also suggest

that students are more likely to seek mental health intervention when seeing posts about mental health or posting about it themselves.

Keywords: *social media, mental health, college students, emotion regulation, intention, frequency, likeliness to seek professional help*

Chapter 1: Introduction

The rise of social media has paved the way for billions of people to communicate with each other from all over the world. Social media is used for a multitude of reasons, but how does it end up affecting our mental health? College students are major consumers of social media, so how can online habits bleed into their personal lives? Researchers have studied the role of social media in college students with mental health concerns. Although the topic is less discussed, the results yielded interesting findings. Through analysis of literature from various sources, this capstone aims to answer this question: *How has social media affected the mental health of college students?* This capstone is qualitative in nature containing a review of literature on the topic from the Purchase College Library database. Then, the methods chapter describes how this study was done. After the methods section is the results chapter which states the primary findings, followed by the discussion.

Chapter 2: Literature Review

In the age of the internet, things are constantly changing and evolving. One example is communication among peers. It is now easier than ever to get in touch with each other. We can call, text, or direct message people from anywhere in the world. Social media allows people to make connections, inspire each other, find new interests, and more. Unfortunately, sharing so much of our lives online can have damaging effects. Scientists have studied social media and its effect on mental health to better address mental health concerns and possible treatment plans. Previous research includes studies on how social media affects depression, anxiety, sleep, relationships, etc. The research done for this capstone focused on answering the question *How has social media affected the mental health of college students?* An analysis of peer-reviewed articles identified three major themes among previous research: intention of social media use, frequency of use, and likeliness to seek professional mental health intervention. Most of the research collected used methods of either an online survey or data analysis. Both qualitative and quantitative data were used for this review.

Why use social media?

Since the early days of social media, researchers have posed questions based on why people use certain platforms. Understanding why people use social media was a popular theme in research for this capstone. In a 2020 study, Cash, Schwab-Reese, Zipfel, Wilt, and Moreno aimed to examine how college students perceived displaying their feelings of depression on Facebook, and how their friends responded. The study was conducted from September to November 2012. There was a quantitative online survey of college students from four universities – public and private – across the country. There was also a qualitative part of the

study called the PHQ-9, the Patient Health Questionnaire – 9, designed to measure depression. Students were prompted to answer questions surrounding their mental health, then the answers were analyzed. Researchers found that 12% of participants reported that their friends offered support through a “like” on their posts about depression. Although many students did not receive private or personalized messages of support, it is still important for researchers to study how the students’ peers responded. The researchers also implicate that increasing mental health literacy can be beneficial in situations where support is needed in social spaces.

Researchers are still looking into how social media and mental health connect. In this article from 2020, a study by Rasmussen, Punyanunt-Carter, LaFreniere, Norman, and Kimball is described where a selection of college students participated in a questionnaire to determine the relationship between social media and mental health. A total of 546 undergraduate communications students from a large university in the southern United States were studied. The ages of the participants ranged between 18-34, with about 73% self-reporting as Caucasian. About 66% of participants reported identifying as female. The study was conducted through an online questionnaire that asked about and measured social media use, difficulties in emotion regulation (DERS), perceived stress (PSS), and mental health problems. The results found that there is a relationship between social media use and mental health in “emerging adults”, but the relation is indirect. The study points to the real issue being trouble with emotional regulation and perceived stress. The results indicate that social media can be used to either seek social support or for emotional suppression. The authors provide possible implications such as the idea that social media “may be a risk factor for mental health problems” and should be taken into consideration when thinking about treatment for mental health problems or

issues with emotional regulation in emerging adults. Some limitations of this study are that the findings cannot be generalized to a larger population. Also, the participant group was made up of college students, therefore people of the same age group who are not enrolled in college could have different challenges or uses for social media. This study points to the issue of emotional literacy among teens and young adults. Understanding and knowing how to handle mental health is an important step in one's treatment and coping.

Everyone handles mental health differently. However, the Covid-19 pandemic left millions of college students panicked and stressed about their lives, unsure of their futures. College students from all over the world returned to their parents' homes for the lockdown. With more time at home, came more time to cope through social media. In an internet-based survey, Zhen, Nam, & Pham (2021) studied college students' self-disclosure of mental health on social media and how they perceived support from their parents. The study took place in 2020 at one southwestern United States university where 215 students responded. Researchers found that students felt some alleviation of their stress when self-disclosing on social media and when receiving parental support. This study showed a positive relationship between stress levels when disclosing oneself to a small group and perceived stress. Support from parents was shown to be a "valuable resource" for students experiencing stress. The researchers point out that one limitation of this study is that it is cross-sectional, meaning these results cannot account for the long-term effects of social media disclosure on perceived stress. Also, since the study took place at the beginning of the COVID-19 pandemic, the stress continued past that point in time. Another limitation is that the self-disclosure of participants offline was not

measured. More research and education on mental health can be beneficial in online communities and students' personal lives.

People that use social media are at liberty to express opinions and discuss personal topics on their platform. How do college students perceive mental health and wellness posts? In their study, Frith & Loprinzi (2017) observe the impact of passive social media usage and active social media usage among college students. The participants of this study were invited to join a Facebook page that would upload 96 status updates containing information that promotes positive mental and physical habits. The active Facebook page would upload 2 updates daily, allowing the students to view and interact with the posts individually. The passive Facebook page would give the students access to all 96 updates from the beginning with no additional posts being added as the study continued. Both groups of students were encouraged to complete a survey with questions commonly used as a self-reported anxiety index. Frith & Loprinzi (2017) observed that the active Facebook page group reported lower levels of anxiety and better recall of the information presented to them on the Facebook page. The results of this study show there is an important distinction between simply consuming social media and actively interacting on social media. The researchers contend that the potency of the cognitive and behavioral messages was diluted in the passive group, providing a rationale for the observed reduction in anxiety in the active group alone. This discovery is evidence that social media helps students with their anxiety when they can find others experiencing similar emotions in real-time, rather than all at once.

Researchers want to know what there is to gain from using social media. Wang, Tchernev, and Solloway (2012) describe a study that aimed to identify how social media affects

needs and gratifications compared to other forms of media. The participants were selected from a large midwestern university, and they were monetarily compensated. The group of 28 students included 17 female and 11 male students. The majority of participants were Caucasian. Participants were asked to describe the activities they took part in throughout their day. After all the data was collected, the researchers determined that college students use social media for several needs, but it may not be as gratifying as other media. The researchers spotted trends in the habitual use of social media, but it is not gratifying, just increases use. The data also suggests that people go to social media for emotional support, again indicating the importance of coping.

A study by Vornholt and De Choudhury (2021) aimed to figure out the role of social media in mental health, and how willing students are to seek mental health support through social media. The study was conducted through interviews with 101 students at a large university in the southeastern United States. Of the participants, 51 were male, and 41 were female. The participatory group was distributed across all academic years, with the largest group being sophomores, and the second largest group being graduate students. The study was designed to identify the extent to which students use social media to suit their mental health needs. In the interviews, participants were asked to describe their feelings about social media usage and its benefits regarding mental health. The study concluded that 70.3% of participants had experienced mental health concerns due to college life. About 51.5% used social media for support, online friendships, and other ways to cope. In contrast, 48.5% disclosed that they do not use social media for mental health needs. The findings of the survey suggest that participants who use social media for mental health disclosure or support already had

heightened mental health concerns. They also seemed less adjusted to college life. The research also implied that lower self-esteem may also be why participants use social media. One limitation of the study, as described by the researchers, was the “generalizability of the study,” meaning the findings are specific to the participants selected from this one university and may not be applied to all college students everywhere.

Does frequency of social media use affect mental health?

There is very little literature on the topic of frequency of social media use alone. However, there have been studies that include some of the data in their research. For example, a capstone written by Emily D’Antonio (2020) describes a study that was conducted to determine the relationship between social media use and mental health among college students at the University of New Hampshire. The participant group was 177 students ranging from all undergraduate classes, 69.5% being upperclassmen. The average age of the group was 20.7, and 78% of the participants identified as female. The study took place in the form of a survey, where students would self-disclose their answers to the questions provided. The survey had questions pertaining to the frequency of social media use, what platforms the participant used most, and at what times of the day. There were also questions regarding the students’ behavior while using social media and what tendencies they would self-identify with. Well-being was measured using the Brief Inventory of Thriving Scale (BIT). One finding of the study was that there was a weak correlation between negative emotions and the intentionality of social media use. Frequency also did not seem to affect well-being too negatively, but the study did indicate that with an increased frequency of use comes the implication of possible addictive tendencies. Another finding was that when participants were asked if they associate “social

media with positivity or negativity,” 44.5% responded by answering “negatively.” The main themes of the survey had to do with “editing content, feeling left out, poor body image, and jealousy.” It turns out that 41% of participants reported having compared themselves to images they have seen on social media and felt poorly about their bodies D’Antonio (2020). One limitation of the study was that the survey measured all the answers that were given, but there was no overall score of BIT items. Also, the survey was online and anonymous, which provides possibilities for inaccuracies. In this case, frequency of social media use did not have a significant impact on the participants' mental health, however, further research on the topic is needed.

Another group of researchers studied how any digital media use before bed affected college students’ sleep. Orzech, Grandner, Roane, & Carskadon’s 2016 study was not specific to social media, but it did have to do with sleep, which can also impact mental health. The researchers studied how self-reported sleep patterns were associated with digital media. The participant group was 254 first-year university students who were asked to keep a sleep diary and a time diary of digital media use. One of the findings of the study was that internet use in the 2 hours before bed was associated with disrupted sleep, but not a later bedtime. Other activities included in the study were reading printed material, texting, and listening to music. Again, there is not enough evidence to prove that frequency of social media use is correlated to mental health concerns, which calls for more investigation into the topic.

Can social media motivate students to seek professional help?

Most college campuses have health services provided for all students. Aside from addressing physical health needs, students can also visit on-campus health centers for mental

health intervention. A study was done by Saha, Yousef, Boyd, Pennebaker, & de Chaudhury (2022) where longitudinal data was used in determining the relationship between social media posts and on-campus mental health consultations at a southern United States university. The study included a collection of data from September 2009 to August 2016. Researchers identified their ground-truth data as being the amount of monthly health center visits, both related and nonrelated to mental health. The researchers also gathered their social media data from the university's subreddit page on the platform Reddit. They used BigQuery API to look through the archives of posts made by students in the university. The archives contained about 66,020 posts from May 2011 to August 2016. The researchers were able to use systems that recognized language to collect their data from social media. Posts that had to do with certain topics or used certain expressions were collected, counted, and analyzed. The research yielded three major findings. First, the researchers found that the number of online expressions of mental health correlated with the amount of on-campus mental health service consultations. Secondly, the SAMIRA model was able to predict ground-truth data of consultations within a 10.65% error. Finally, researchers were able to compare mental health terminology and language from social media with on-campus mental health visits. The more visits, the more posts discussed academics, careers, and worse mental well-being. The fewer visits, the more posts discussed partying, leisure, and better mental health. The researchers also provided the limitations of this study. For example, the researchers state that they "cannot claim clinical validity." This means that this study cannot be counted as sole evidence of the topic, and further research should be done in the future. Another limitation similar to other research is the way that the study was only done at one university using only one type of data. This means

that the results may not be applicable to a wider population, but the research model can be used at other universities to measure other data. One other limitation that comes with studying social media is that data is heavily reliant on the users. The information comes from people who use and opt to share about their mental well-being on social media. Without full transparency, the data may be skewed.

Another study using data analysis was done by Choi, Kim, & Yoo (2021). The researchers were interested in why college students turn to social media for mental health support. The study aimed to identify strategies for using social media to combat mental health in college students. The study also took into consideration creating video-based social media content for students' mental health. The researchers put together a content analysis of YouTube videos concerning college students' mental health. They looked for video attributes, including the person posting the video, perspectives, and purpose. The data was collected by conducting a keyword search of YouTube videos concerning mental health and college students (the list of words is in the text). The researchers found that students responded best to individuals who told their stories through personal experience, off which the creators based their tips and advice. These videos had greater engagement and continued to keep that engagement up over time. There was a total of 397 videos studied: 9.8% were created by individuals promoting help-seeking, and 13.5% by organizations. The study found that college students turn to these types of videos because they provide peer support, validation of experience, the opportunity to learn from others' experiences, and the encouragement of help-seeking Choi, Kim, & Yoo (2021).

Conclusion

Overall, the literature offers insights into why and how social media affects college students and their mental health. Unfortunately, the findings can be contradictory, so readers must take caution when considering treatments for mental health problems. However, this shows how important the conversations around mental health and social media are. A strength of the literature was that most of the studies relied on actual social media users' experiences. The surveys were important for researchers to let students put their feelings into their own words and disclose their mental health concerns anonymously. The data analyses allowed researchers to study their topics using as much information as possible. There were weaknesses in the literature as well. For example, each of the studies had problems with generalizability, meaning the findings for all these studies may not apply to all college students who use social media and have mental health problems. That is why it is important to collect multiple sources and come to educated conclusions. Furthermore, research is still needed on social media addictions and how they relate to college students.

Chapter 3: Methods

This Senior Capstone is a qualitative study using information from past research from multiple sources. The purpose of my study was to answer the research question,

RQ: *How has social media affected the mental health of college students?*

At first, my topic was very general, not having narrowed it down to any specific education level. I had initially intended to write about teenagers to young adults, but the lack of documentation proved that it was too broad. With help from the professor, I was able to narrow my research to college students - a more relevant approach. As a college student, I can relate to the issue, and I think the research is important. Once I set my sights on the topic, I started by entering the keywords "*social media mental health college students*" into the Purchase College Library database. I then looked through each search result. First, I would read the abstract or description of the provided study. I also made sure to check if the source was peer-reviewed for the trustworthiness of the data. Then, if I found it related to my topic, I read through the study, taking notes on key points, research methods, results, participant demographics, discussion points, strengths, and limitations. I followed this style with each study that I found helpful. The documents I found were quantitative studies where the research was described in detail. Some of the studies were done by scientists; students conducted others like me interested in studying this topic. Most of the studies were done in the form of surveys. Some researchers investigated the same or a very similar version of the subject I chose. Other documents I used because there was some piece of information that helped further my research or brought to light a different perspective. I chose the qualitative design because there have already been so many studies on my topic that I feel like I can answer my research

question by analyzing the data. At a certain point, I had trouble finding sources through the database, so I started looking through the references used in each article, and I was able to find more sources that were similar to what I was researching. I looked for common authors and common themes to identify what would be helpful to me.

Once I collected all my sources, I began my data analysis. As previously mentioned, most of the studies involved surveys of college students. The research I studied counted as quantitative since the results were measured through surveys with percentages etc. However, my research is qualitative, as it is an analysis of multiple studies coming together to form one conclusion. First, I gathered each set of data, finding which studies can relate to each other the most. Then, I grouped the results that were most related to identifying themes. The themes I was able to locate were frequency of social media use, the intention of social media use, and likeliness to seek professional intervention. I believe that a literature analysis was the best way to conduct my research because of the availability of documents supporting my topic. I made sure that I looked at studies conducted in the United States. The sizes of each participatory group varied, but most of the groups studied were from large public universities. The surveys were all done through different formats, but they were all sent to students online, with the answers recorded anonymously. The researchers did ask for demographic information, making it easier to understand the participant group. All the research I collected was published recently, within the last ten years.

One limitation of my research and the research I analyzed is that the results of these studies cannot be generalized. Although the participant groups may be representative of the specific demographics of each university, the result cannot be applied to every student body

from every university across the United States. This limitation should be considered when looking through the data. Other than this limitation, I encountered no significant problems during my research process. Making sure I had peer-reviewed articles, well-written sources, and documents related to my topic, I prevented any issue that could arise regarding credibility.

Chapter 4: Results

Social media has been a big part of modern culture for years and is only continuing to grow. The opportunity to connect with people from all over the world with just a few clicks may be what is so enticing about this ever-expanding form of social interaction. Young people, such as teenagers and college students, have found themselves growing up in the age of the Internet, with social media as a major aspect of communication. College students have had to learn to navigate the technological world while trying to understand their mental health at the same time. With mental health concerns in college students on the rise, investigating how social media usage plays a part could be beneficial. The research for this capstone was done by literature review. The types of studies that were read through and analyzed were both quantitative and qualitative. Online surveys and data analysis were the methods used. For this capstone, a search was done through the school database for peer-reviewed articles that had to do with the research topic. Common themes were found in the research. This chapter contains the results of this capstone, which was conducted to answer the research question:

RQ: *How has social media affected the mental health of college students?*

Some key themes that were found during the research for this capstone were intentions of social media use, frequency of use, and overall likeliness to seek intervention for mental health problems after using social media. Between online surveys and data collection, the studies that were analyzed helped to answer the research question.

Intention of social media use:

The first objective of this study was to understand why college students use social media in the first place. It has been found that college students use social media for several different

reasons. Wang, Tchernev, and Solloway (2012) studied how social media may affect college students' needs and gratifications compared to other forms of media. The researchers found that participants did find gratification in short-term social media interactions, and it is possible that a driver of social media use is habitual need, therefore, short-term interactions mean short-term gratification. Wang, Tchernev, and Solloway (2012) also found that students may turn to social media to seek social and emotional support. Additionally, a study done by Rasmussen, Punyanunt-Carter, LaFreniere, Norman, and Kimball (2020) observes that social media has been used for my emotional suppression. The findings also point to perceived stress and problems with emotion regulation as the real issue when discussing college students and mental health. Further research may be useful when seeking treatment options.

So far, the provided findings have shown that college students use social media for social support and emotion suppression. One study by Cash, Schwab-Reese, Zipfel, Wilt, and Moreno (2020) found that when college students posted on Facebook about feelings of depression, they were met with "likes" from their friends as a signal of support. Results from this study show that the participants felt support from their peers when posting about negative feelings, but there was no direct reference to having depression or seeking professional help. The researchers indicate that the issue here may simply be a problem with "mental health literacy" since the participants did not receive suggestions to seek professional help (Cash, Schwab-Reese, Zipfel, Wilt, and Moreno, 2020).

Similar to the results of Cash, Schwab-Reese, Zipfel, Wilt, and Moreno (2020), a study by Zhen, Nan, and Pham (2021) found that when students self-disclose their mental health concerns on social media, they feel alleviated by some of the stress. The study occurred during

the height of the COVID-19 pandemic when stress was already high. The findings indicate parental support being a “valuable resource” to students experiencing pandemic and mental health stress. Zhen, Nan, and Pham concluded that education on social media, mental health, coping, and ways to alleviate stress may be beneficial for healthcare workers and educators to study (2021). Vornholt and De Choudhury (2021) also investigated how social media relates to mental health in college students. About 51% of participants reported that they used social media for support, friendships, or to cope with their mental health concerns due to college life. The researchers found that students may experience both negative and positive effects of social media, depending on their mental health status before use.

The research for this capstone provides various answers to why college students use social media. The result of this analysis shows that students with mental health concerns turn to social media primarily for support and to feel like they are not alone. A further finding is that students with preexisting mental health concerns may turn to social media to suppress their emotions. The findings also show that some college students may suffer from problems understanding their emotions and how to regulate them. It is important to note that social media is not the cause of mental health concerns in students. Instead, the problem, as supported by research, is the lack of education on emotion regulation from a young age.

Frequency of use:

Researchers have studied how the frequency of social media use can relate to or influence mental health in college students. Emily D’Antonio (2020) found that students’ frequency of social media use only weakly correlated with results from a mental health

questionnaire. However, D'Antonio (2020) writes that increased social media use may be indicative of a social media addiction.

In another study, Orzech, Grandner, Roane, & Carskadon (2016) aimed to determine how sleep patterns were associated with digital media use. Through the data collected, researchers found that "surfing the internet" was associated with disrupted sleep, but not necessarily a later bedtime.

With very little data on this topic, the findings confirm that further research is needed to conclude whether the frequency of social media use affects mental health in college students.

Likelihood to seek mental health intervention:

Another theme that was found in the research for this capstone was college students' likelihood to seek mental health intervention. Choi, Kim, & Yoo published an article in 2021 on a study they did involving the popular video platform YouTube. The researchers found that videos involving mental health and self-care tips/advice had better engagement when the creators shared their personal experiences. These types of videos feel more personal to a viewer, offering a sense of peer support, validation, and encouragement to seek help. Data from their research also found that, even though a greater percentage of the videos were created by organizations, viewers responded better to videos created by people with similar experiences to themselves.

Saha, Yousef, Boyd, Pennebaker, & de Chaudhury (2022) used similar methods. They aimed to determine the relationship between social media posts about mental health and on-campus mental health consultations. The study took place at a southern United States university. Saha, Yousef, Boyd, Pennebaker, & de Chaudhury (2022) used BigQuery API to look

through archived posts that mentioned mental health on the university's subreddit forum. One major finding was a correlation between online expressions of mental health and on-campus mental health service consultations throughout the studied time frame. When the health center saw more visits, posts on Reddit seemed to describe more feelings of worse mental well-being. Less health center visits coincided with more posts discussing better mental health.

From these results, there is no definitive correlation between social media use and mental health in college students. However, the findings suggest that when students are more open on social media about their mental health, they may receive support and motivation to seek professional mental health treatment. The findings show the importance of companionship and sharing one's experience to help others. Regarding the likeliness to seek mental health intervention, the results show a more significant possibility when students share and hear each other's personal experiences.

Chapter 5: Discussion

The research for this capstone provided an answer to the question of *How has social media affected the mental health of college students*. The three main themes of the research – intention of use, frequency of use, and likeliness to seek professional help – were highlighted through examples from previous research. Authors such as Wang, Tchernev, and Solloway (2012) and other sources aimed to understand the relationship between students' social media use and their mental health. College students use social media for reasons such as seeking support and emotional suppression. There is no evidence to support that social media has any direct correlation with mental health. The research shows a common issue with emotion regulation, and there is a possibility that social media is just a way for students to cope with their mental health challenges. These results should be considered when discussing mental health among college students. Implications of this study may include ways to educate students on topics such as emotion regulation, mental health, and coping.

A less discussed topic was the frequency of social media use. Orzech, Roane, and Carskadon (2016) and D'Antonio (2020) studied how time spent on social media could affect college students' lives. It has been found that more social media use does not directly lead to mental health problems, but it may be an indication of an emerging social media addiction. Currently, there is very little research on social media addictions, therefore, research on the topic is recommended. Based on the research used in this capstone, social media addictions may be an indication of a bigger problem.

Finally, the likeliness to seek professional help was also addressed. Research by Saha, Yousuf, Boyd, Pennebaker, and De Choudhury (2022), showed an increase in mental health

interventions when students reported their negative feelings online. A study by Choi, Kim, & Yoo (2021) also investigated data on social media content about mental health. Both studies proved that college students engage more with posts about mental health and may be more open to professional help after viewing. The results suggest that college students may benefit from sharing experiences of mental health online to find support from people with mutual feelings.

All the research for this capstone highlights different factors of social media use and how it impacts students' mental health. To answer the research question, social media affects college students in an unexpected way. The research presents that college students who use social media might be finding relief and support, as opposed to feeling negative because of it. This capstone provides a basis for future investigation into topics such as emotion regulation and stress in college students.

References

- Cash, Schwab-Reese, L. M., Zipfel, E., Wilt, M., & Moreno, M. (2020). What College Students Post About Depression on Facebook and the Support They Perceive: Content Analysis. *JMIR Formative Research*, 4(7), e13650–e13650. <https://doi.org/10.2196/13650>
- Choi B, Kim H, Huh-Yoo J. (2021). Seeking Mental Health Support Among College Students in Video-Based Social Media: Content and Statistical Analysis of YouTube Videos. *JMIR Form Res* 2021;5(11):e31944. <https://formative.jmir.org/2021/11/e31944>
- D'Antonio, Emily G., "The Relationship Between Social Media Engagement and Psychological Well-Being in College Students at The University of New Hampshire" (2020). Honors Theses and Capstones. 515. <https://scholars.unh.edu/honors/515>
- Orzech, Grandner, M. A., Roane, B. M., & Carskadon, M. A. (2016). Digital media use in the 2 h before bedtime is associated with sleep variables in university students. *Computers in Human Behavior*, 55(A), 43–50. <https://doi.org/10.1016/j.chb.2015.08.049>
- Eric E. Rasmussen, Narissra Punyanunt-Carter, Jenna R. LaFreniere, Mary S. Norman, Thomas G. Kimball. (2020). The serially mediated relationship between emerging adults' social media use and mental well-being, *Computers in Human Behavior*, Volume 102, Pages 206-213. <https://doi.org/10.1016/j.chb.2019.08.019>.
- Saha, Koustuv and Yousuf, Asra and Boyd, Ryan and Pennebaker, James W. and De Choudhury, Munmun. (2022). Mental Health Consultations on College Campuses: Examining the Predictive Ability of Social Media. <http://dx.doi.org/10.2139/ssrn.3774189>

- Vornholt, P., & De Choudhury, M. (2021). Understanding the Role of Social Media-Based Mental Health Support Among College Students: Survey and Semistructured Interviews. *JMIR mental health*, 8(7), e24512. <https://doi.org/10.2196/24512>
- Zheng Wang, John M. Tchernev, Tyler Solloway. A dynamic longitudinal examination of social media use, needs, and gratifications among college students, *Computers in Human Behavior*, Volume 28, Issue 5, 2012, Pages 1829-1839, ISSN 0747-5632, <https://doi.org/10.1016/j.chb.2012.05.001>.
- Zhen, Nan, Y., & Pham, B. (2021). College students coping with COVID-19: stress-buffering effects of self-disclosure on social media and parental support. *Communication Research Reports*, 38(1), 23–31. <https://doi.org/10.1080/08824096.2020.1870445>