

California State University, San Bernardino **CSUSB ScholarWorks**

Electronic Theses, Projects, and Dissertations

Office of Graduate Studies

5-2024

Social Media Told Me I Have A Mental Illness

Kathleen Knarreborg

Follow this and additional works at: https://scholarworks.lib.csusb.edu/etd



Part of the Social Work Commons

Recommended Citation

Knarreborg, Kathleen, "Social Media Told Me I Have A Mental Illness" (2024). Electronic Theses, Projects, and Dissertations. 1924.

https://scholarworks.lib.csusb.edu/etd/1924

This Project is brought to you for free and open access by the Office of Graduate Studies at CSUSB ScholarWorks. It has been accepted for inclusion in Electronic Theses, Projects, and Dissertations by an authorized administrator of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.

SOCIAL MEDIA TOLD ME I HAVE A MENTAL ILLNESS

A Project Presented to the Faculty of California State University, San Bernardino In Partial Fulfillment of the Requirements for the Degree Master of Social Work by Kathleen Ann Knarreborg

May 2024

SOCIAL MEDIA TOLD ME I HAVE A MENTAL ILLNESS

A Project

Presented to the

Faculty of

California State University,

San Bernardino

by

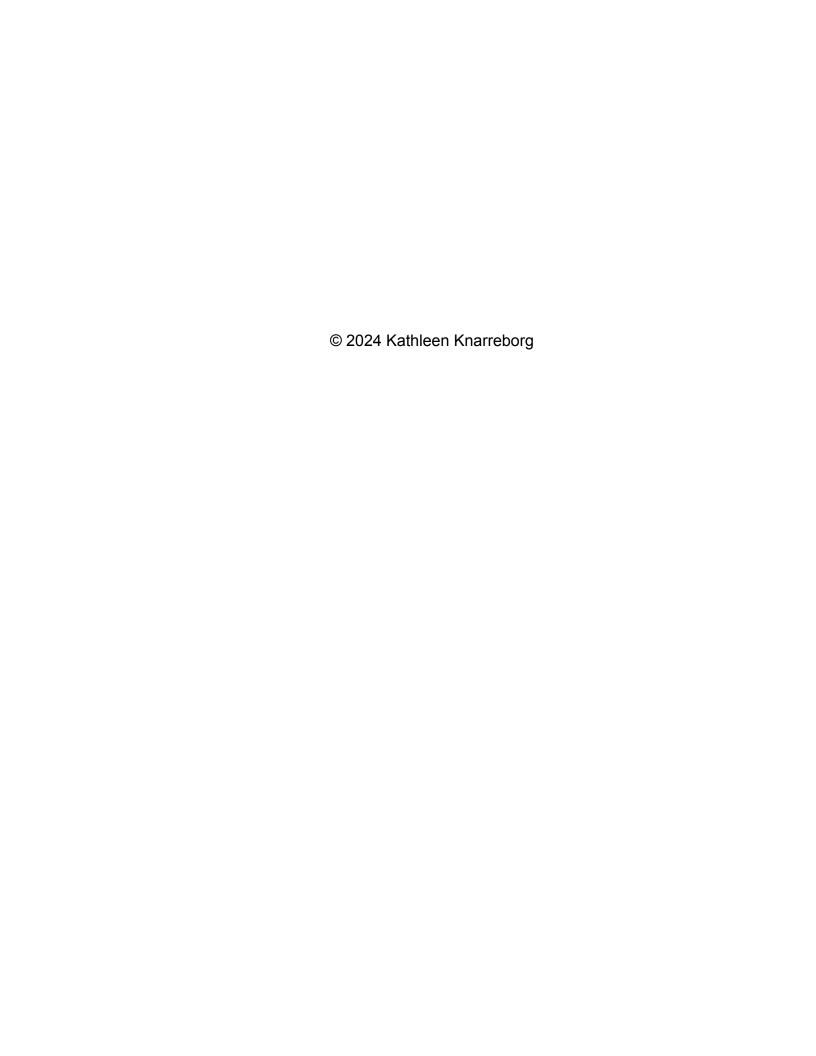
Kathleen Ann Knarreborg

May 2024

Approved by:

Dr. Yawen Li, Faculty Supervisor, Social Work

Dr. Yawen Li, M.S.W. Research Coordinator



ABSTRACT

Objective: This study assessed and addressed the attitudes and behaviors towards mental health information on social media, specifically regarding how it influences viewers behaviors and attitudes relating to mental health. Method: Using a quantitative research design, the study collected data through Qualtrics from a 15 question survey called the Mental Health Information Scale (MHI). The survey, distributed across several social media platforms, aimed to understand user attitudes and engagement with mental health content into three dimensions: stigma, self-diagnosis, and confidence in the validity of the content. **Findings:** There were 99 participants in this study, 69.9% female, 21.4% male. The factor analysis includes 5 underlying dimensions found within the (MHI) scale. The factor analysis demonstrated that the survey questions had low reliability. The regression analysis highlighted that men and older participants are less likely to self-diagnose themselves and have more skepticism of the mental health content they see on social media. The results of this study highlight a need for specific interventions such as digital literacy and policy changes to address the effects of viewing mental health related content online.

ACKNOWLEDGEMENTS

The researcher would like to acknowledge and extend their appreciation for the support provided by their research advisor Dr. Yawen Li and peer research consultant Christian Koeu, and all other university staff who have provided extra support throughout this research. Lastly, the researcher would like to acknowledge their wonderful and passionate cohort who consistently provided support and encouragement throughout this journey.

DEDICATION

I would like to dedicate this research project to my family and friends who have supported me through this journey. I would also like to give a special thanks to my significant other Dustin who has always been my greatest supporter and believed in me even when I didn't. Most importantly, I want to dedicate this project to my Mother who has truly been my biggest inspiration. Thank you for teaching me to have a strong work ethic, faith, and most importantly, to value the important things in life. Without you I would not be who I am today.

TABLE OF CONTENTS

ABSTRACT
ACKNOWLEDGEMENTSi
CHAPTER ONE: PROBLEM FORMULATION
Introduction
Purpose of the Study
Significance of the Project for Social Work Practice
CHAPTER TWO: LITERATURE REVIEW
Introduction4
Health Misinformation on Social Media
Impact of Social Media on Mental Health
Connections Health Misinformation and The Effects on Users
Theories Guiding Conceptualization
Motivated Reasoning Theory
Theory of Negative Bias
Summary
CHAPTER THREE: METHODS
Introduction1
Study Design11
Sampling12
Data Collection and Instruments13
Measurements13
Attitudes Towards Mental Health Information on Social Media 13

Self Diagnosing	
Stigma	
Confidence	14
Demographic Variables	
Procedures	15
Protection of Human Subjects	
Data Analysis	16
Summary	
CHAPTER FOUR: RESULTS	18
Introduction	18
Sample Characteristics	
Factor Analysis	19
Regression Analysis	20
Summary	24
CHAPTER FIVE: DISCUSSION AND CONCLUSION	
Introduction	
Discussion of Findings	25
Implications	
Theoretical Implications	
Implications for Social Work	
Limitations and Recommendations	
Conclusion	30
APPENDIX A: SURVEY QUESTIONS	
ADDENINIY R. ELVED	35

APPENDIX C: INFORMED CONSENT	37
APPENDIX D: IRB APPROVAL	39
REFERENCES	41

LIST OF TABLES

Table 1. Sample Characteristics	21
Table 2. Factor Analysis	.22
Table 3. Regression Analysis	.23

CHAPTER ONE

PROBLEM FORMULATION

Introduction

With its increasing popularity and accessibility, many researchers have studied the different effects social media has on its users (Sharma, 2020). The Covid-19 pandemic highlighted that social media quickly became a source of health information for many of its users (Jabbour, 2020). Social media platforms offer easily accessible and digestible information, however, how are social media users differentiating what information is verified versus unverified, specifically information about mental health. A total of 4.48 billion people around the world are currently signed up to one or more social media platforms (Says et al., 2021). In 2012, more than 70 percent of Americans reported searching for health information online, making health information one of the most searched topics (Frenda et al., 2013). Social media gives users from different socioeconomic, educational, and cultural backgrounds a platform to explore and post a wide variety of content. However, due to lack of vetting policies, the spread of misinformation on social media about mental health could lead to self-diagnosis. perpetuate stigma and other negative outcomes.

Purpose of the Study

Misinformation is defined as inaccurate or misleading information (Greenspan & Loftus, 2021). A recent study analyzed 80 million tweets about unverified health information from 76,985 users. The results of this study

indicated that users who shared and viewed health misinformation experienced an increase in anxiety two times higher than users who did not view this information. More notably in this study vulnerable populations such as, minority groups, women, and participants with lower education levels had higher rates of anxiety caused by health misinformation on social media (Verma et al., 2020). These populations are being affected by health misinformation due to curiosity, concern, and its translation of difficult medical terminology (Kłak et al., 2017). Misinformation about mental health on social media is a concern for social service works on both a micro and macro level, as it directly targets and affects minority groups and other at risk populations. It's important for mental health professionals to identify the effects of this issue to prevent further complications and better serve those who are negatively affected by it.

Significance of the Project for Social Work Practice

Since there is little to no research conducted on the implications on the spread of mental health misinformation may have, there has been no preventative guidelines put into place. Additionally mental health professionals do not have any instruction on how to address this problem or the possible long term effects caused by it. Due to technological advances and the speed at which the information spreads, it's clear that policies and guidelines need to be created to protect social media users from possible negative effects such as self-diagnosing, and perpetuating stigma about mental health.

On a micro level this study will address how social media users ranging from ages 18-65, are differentiating between verified and unverified mental health information. Additionally, the results of this study may uncover why social media are using information online to self-diagnosis as opposed to seeking out professional guidance. On a macro level the result of this study will identify how the spread of mental health misinformation can perpetuate stigma along with what policies need to be implemented to prevent the spread of mental health misinformation on social media. As the world continues to evolve into a digital society it is important for social service workers and mental health professionals to educate the community about the dangers of mental health misinformation on social media. The current study will address the research question: how the spread of mental health misinformation on social media leads to self-diagnosing, increased stigma, and other negative effects among social media users from ages 18-65 years old.

CHAPTER TWO LITERATURE REVIEW

Introduction

This chapter will review prior research examining the effects that mental health misinformation has on social media users. Prior research indicates that health misinformation can have negative effects on users' mental health, influence behaviors, and perpetuate false information. This section will also discuss current theories research explaining the relationship between the spread of mental health misinformation and how it affects social media users. Lastly this chapter will discuss gaps in the research that call for further examination that will be addressed in this study.

Health Misinformation on Social Media

The spread of propaganda dates back to Ramona and Nazi times, where mass communication was used to gain power and persuade communities to believe a false narrative (Ecker, 2022). Today, misinformation is spread rapidly through social media having the potential of affecting 4.48 billion social media users (Says et al., 2021). With health information being one of the most searched topics on the internet, social media has become the perfect medium for spreading health misinformation (Frenda et al., 2013). Social media provides easily digestible and accessible information, however many users spread knowingly or un- knowingly fear, rage, opinion and other misinformation among users who are simply searching for answers (Hunt et al., 2018).

Content on social media that looks trustworthy, and evokes an emotional response is more likely to be believed and in many cases is designed to be easily shared (Hunt et al., 2018). Information that adheres to someone's worldview or personal beliefs also plays a significant role in whether or not the information is viewed as factual (Ecker, 2022). This can be due to personal biases but also because absorbing information that someone already believes is true is easier than having to challenge one's own values and beliefs (Ecker, 2022). Another contributing factor to the spread of health misinformation is information that is shared in a trusting relationship, plays a role in whether the information is perceived as true (Trethewey, 2019). This can be explained not only due to the trust between the two parties but also because information might be translated in a way that is easier for the receiving party to understand, however the information might be translated incorrectly and may also be based on false pretenses (Trethewey, 2019).

Impact of Social Media on Mental Health

In 2021 Americans will have spent more than 1,300 hours on average on social media (Suciu, 2022). Meaning that half of someone's free time is spent on social media platforms (Suciu, 2022). There are many risks that come with using social media due to social media's popularity and the sheer amount of time people are spending on different platforms. Higher rates of self-harm, suicidal behavior, as well as internalizing and externalizing problems have been closely associated with increased time spent on social media (Nesi, 2020).

A study that interviewed over 400 adolescents in a psychiatric hospital found that 16.6% viewed self-injury content and 14.8% saw content promoting suicide only two weeks before their admission into the hospital (Nesi, 2020). In a systematic review, research suggests that excessive social media use is closely related to poor mental health outcomes such as depression, poor sleep quality, and anxiety (Alonzo et al., 2021). A review found that 60% of adults are on their phone one hour prior to going to bed and 81% of youth reported being on social media which causes cognitive arousal linked closely to poor sleep quality (Alonzo et al., 2021).

As the world becomes more digitally dependent, the idea of internet related disorders, although not recognized by the DSM, are being considered due to the negative effects it has on users mental and psychical health (Brand, 2016). Research by Sha and Dong (2021) investigated the effects of "TikTok Use Disorder" and other mental health challenges such as depression, anxiety, and memory loss closely related to heavy social media use. Their research found that 12% of the adolescents in their study show signs of internet addiction and as adolescence age the likelihood of this addiction increases. The findings also suggested that heavy social media use is positively correlated to memory loss, anxiety, depression and stress (Sha & Dong, 2021).

Connections Health Misinformation and The Effects on Users

The Corona Virus outbreak highlighted the power of misinformation on social media and how it can influence users behaviors, specifically regarding

medical decisions (Jabbour, 2022). During the pandemic a study examined social media users from ages 16 to 60 years old and 83% of all participants reported using social media and other internet platforms more frequently to research health information during the pandemic (Hammad & Alqarni, 2021). A total of 46.42 % of the participants reported feelings of anxiety and depression due to the unverified information on social media (Hammad & Alqarni, 2021). Ahmad and Murad (2020) also found that unverified information on social media regarding Covid-19 had a significant impact on their mental health and health decisions. This misinformation spread fear among social media users and directly affected their views on vaccinations (Ahmad & Murad, 2020). The evidence from these research studies demonstrates how health misinformation on social media negatively affects mental health and can influence people's behaviors.

Although there is limited research on the direct relationship between mental health misinformation on social media and how it influences users' behaviors, there is research that suggests there may be a significant correlation between the two. Wilcox and Stephen (2013) found through five different experiments that social media users exhibited low self-control in healthy choices after browsing social networks compared to those who were not browsing. Another study found that college student who received positive reinforcement for posting risky behaviors such as using alcohol or drugs, 40% of those students would post more alcohol related photos on social media by the end of their freshmen year (Steers et al., 2016) These findings suggest that posts containing

misinformation and positive posts about risky behaviors are likely to increase the future participation in risky behaviors. There is a cap in the research addressing the direct effects of viewing mental health misinformation on social media that this study aims to address.

Theories Guiding Conceptualization

Motivated Reasoning Theory

Ziva Kunda developed Motivated Reasoning Theory which suggests that someone may have a conscious or unconscious mechanism to accept new information that confirms their preexisting beliefs and attitudes (Ecker, 2022). Understanding and utilizing this theory will give insight into why someone may believe mental health misinformation on social media despite verified contradictory evidence. This study will analyze how mental health misinformation may influence people's behaviors by increasing self-diagnosing and this theory supports the idea that if someone already believes they have a mental health disorder based on misinformation, verified information or even a professional opinion will have little influence on their beliefs. This also supports the idea that misinformation about mental health on social media may discourage individuals from seeking professional help, because social media users feel confident in the "treatment" they are receiving online.

Theory of Negative Bias

Paul Rozin and Edward Rayzman proposed this theory suggesting that information that evokes an emotional response or is generally negative, is likely to have a stronger influence on individuals' attitudes and behaviors (Norris, 2021). As previous literature discussed in this chapter stated, some social media content is created to trigger users' emotions such as fear and anxiety, to mold their views and beliefs to fit a certain agenda. Due to technological advances social media users are able to easily add music, filters, and other features to help shape an emotional response from users. This theory highlights the strong influence social media has on users' behaviors and beliefs, more specifically regarding mental health.

This theory also describes how misinformation on social media about mental health can perpetuate stigma and misconceptions about mental health and getting professional help. For example, if someone posts a video online about their terrible experience in a psychiatric hospital after being placed on a hold, this may encourage users who may need professional help to avoid it and find their own coping strategies which can be more harmful. This theory also gives context as to why someone's negative misconceptions about people with mental health challenges are able to be perpetuated through false information about the symptoms, causes, and treatments.

Summary

Previous research has demonstrated what kind of effects viewing health misinformation social media has on users. However, there is little to no research on assessing attitudes and behaviors towards mental health information on social media. The literature provides evidence that explains why misinformation online is widely accepted which includes emotion evoking content, confirmation bias, and lack of awareness about misinformation online. This study will assess and address the attitudes and behaviors towards mental health information on social media, specifically regarding how it influences viewers behaviors and beliefs relating to mental health.

CHAPTER THREE METHODS

Introduction

The purpose of this study is to assess attitudes and behaviors towards mental health information on social media. The current study addresses the research question: how the spread of mental health misinformation on social media leads to self diagnosing, increased stigma, and other possible negative effects among social media users. This chapter discusses the study design, sampling methods, data collection and instruments, procedure, protection of human rights and data analysis.

Study Design

The purpose of this study is to assess and address the attitudes and behaviors towards mental health information on social media, specifically regarding how it influences viewers behaviors and beliefs relating to mental health. The quantitative study is exploratory in design, with the purpose being to uncover why this phenomenon exists and what are the causes and effects. To collect data, a fifteen question survey called the Mental Health Information Scale (MHI), was shared on multiple of the researchers public social media platforms. A survey is an ideal research method for this study because surveys are quick and inexpensive to administer, can provide quantitative data, and can also reach a large number of participants. Since participants are able to take the survey at

their own convenience, it reduces stress and allows participants to take their time and give more accurate and honest answers. For this specific research administering a survey on different social media platforms directly targets the population the study is addressing.

Although there are many advantages from using this approach there are also some limitations, one of which is participants are unable to provide detailed responses. Participants may suffer from response bias and self reported data may not always be accurate. Although through using this method we will get a general grasp of how mental health misinformation effects social media users, it may be difficult to gain a full understanding of the long-term effects of viewing mental health misinformation on social media.

Sampling

For this study the targeted population was all social media users ranging from ages 18 to 65 years old. Participants who were excluded from the study were those who do not have at least one social media platform and who are not 18 years or older. In order to gain data that is representative of the targeted population for this study the age cap is 65 years old. The sample framework consisted of convenience sampling. The researcher posted a link to the survey on several different public social media sites. Participants were encouraged to re-post or share the survey however it was not a requirement to participate in this study. Data collected using convenience sampling can be more applicable to a

broader range of individuals. Since the study design allows for a larger sample size the sample size was 99 participants.

Data Collection and Instruments

Due to the exploratory nature of this study the researcher developed the (MHI) scale and put the survey through Qualtrics to collect demographic characteristics and other information pertaining to this specific research. After creating the survey through Qualtrics participants were recruited through the researchers several different public social media platforms. This study was displayed through social media statuses, post updates, and through shared "stories" on social media platforms.

Measurements

Attitudes toward Mental Health Information on Social Media

Previous researchers have developed a 12 item social media disinformation scale (SMDS-12) as it relates to COVID-19 (Guelmami et al., 2021). The scale was based on three dimensions: consumption, confidence, and sharing. Four survey questions were developed for each dimension. For this particular study the scale had to be adjusted in order to address the research question. The three dimensions consisted of self diagnosing, stigma, and confidence. Five questions were developed from each dimension creating a 15 item social media disinformation scale as it relates to mental health (see appendix A). Since there is no research on this specific research topic, the

researcher created their own scale. The researcher created a 15 item scale measured on a 15 point likert scale called the Mental Health Information Scale (MHI). Survey questions measured three different dimensions: self diagnosing, stigma, and confidence in the information. There are five questions to assess each dimension. Below there are sample questions for each dimension that this study aims to address in the survey. Please see Appendix A for the full list of survey questions.

Self Diagnosing

How often do you feel like you can accurately identify symptoms of mental health conditions based on information you found on social media?

How likely are you to talk to a mental health professional if you think you may have a mental health condition based on information you found on social media?

Stigma

How often do you see mental health related content on social media that perpetuated stigma or negative stereotypes about mental health?

How much do you believe that mental health-related content on social media can influence people's attitudes towards mental health issues?

Confidence

How often do you fact check to verify the information you see on social media before sharing or re-posting it?

How much do you believe that mental health related content on social media is influenced by the agenda of the person or organization posting it?

Demographic Variables

In this study there are several control variables that were analyzed to see the potential relationship between exposure to mental health misinformation on social media and its effects on users. Demographic variables such as age, gender, race, and education level. Participants were also asked about their personal experience and knowledge with mental health following a (strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree) scale. These control variables were analyzed to see the correlation between the demographics and effects of viewing mental health misinformation on social media.

Procedures

This study aimed to reach a diverse population of social media users who have been exposed to mental health content via social media. The researcher made posts on several public social media platforms. The post gave a brief description of the study's purpose followed by a link to the survey. The research also utilized known networks to share the survey link. The post encouraged participants to repost and share the survey on their own social media platforms. Survey data was collected through Qualtrics and later analyzed using SPSS.

Protection of Human Subjects

The research prioritized the protection of participants, making it the main focus when establishing the research design. Participants were asked to provide general non-identifiable demographic information for this study which allows their identity to remain anonymous. The online survey consists of a confidentiality and disclaimer agreement at the beginning of the survey that had to be signed before the participant could begin the survey. Participants were made aware of the purpose and goal of this study prior to beginning the survey. All participants were able to opt out of answering specific questions as well as exiting the survey at any time. Due to the nature of this study, there is little to no possibility that participants will experience negative outcomes from participating in the study. Data collected from participants was stored in a password protected file that only the researcher will have access to. One year after completing the study, the data will be destroyed.

Data Analysis

Data was collected through an online survey using Qualtrics. Once the survey was closed results were then imported from Qaltrics into SPSS. Data cleaning was used to ensure the accuracy, reliability, and validity of research findings. The researcher removed duplicate responses that were submitted from the same IP address to prevent inaccurate data collection. Survey results that had missing values were removed from the data collection. Reverse coding was

not needed in this study so after data cleaning was completed the research organized the findings into their appropriate categories.

Summary

This study aims to identify how viewing mental health misinformation on social media leads to self diagnosing, stigma, and other effects it has on users. The quantitative methods used in this study will allow the researcher to use the information gathered from participants to understand how this affects social media users on a larger scale. The study design allows for a large range of diverse participants to complete the survey allowing for a more accurate picture of the true effects that viewing mental health misinformation has on users.

CHAPTER FOUR RESULTS

Introduction

The purpose of this study is to examine attitudes toward mental health information on social media sites and the factors associated with these attitudes. The chapter will begin with an overview of the data collected in this study, including the measures used to ensure the data was ready for analysis.

Following this, descriptive statistics are used as a snapshot of the data collected through the survey, illustrated with tables. The primary purpose of the chapter is to display the results from the data analysis as they address the research question.

Sample Characteristics

Table 1 displays the sample characteristics of the 99 participants of this study. All participants are aged 18 years old or older. Characteristics were diverse however more than half of the participants were female (69.9%) and participants were predominantly white (59.2%). The majority (42.7%) of participants' highest level of education was holding a bachelor's degree. Fewer participants reported completing high school or holding an Associates Degree (5.8%). Participants reported spending an average of 3.23 hours per day on social media (SD = 1.6). Instagram was the most used platform (70.7%), followed by TikTok (44.4%), and Facebook (28.3%). Participants reported

spending an average of 3.23 hours per day on social media (SD = 1.6).

Instagram was the most used platform (70.7%), followed by TikTok (44.4%), and Facebook (28.3%).

Factor Analysis

Table 2 presents the factor analysis used to examine the factor structure of the 15-item scale. Five factors were extracted and accounted for 62.95% of the variance. The rotated factor matrix revealed a clear and interpretable factor structure, with factor loadings ranging from the lowest being 0.605, and the highest is 0.864. Factor loadings of 0.60 and above are considered to indicate a strong relationship between the item and the factor. Factor 1, labeled "Self-Diagnosing," included 3 items related to how much participants feel the mental health content they see on social media influences self-diagnosing behaviors. Factor 2, labeled "Stigma," included 3 items related to how much participants feel the content they see on social media increases stigma towards mental health related topics. Factor 3, labeled "Skepticism," included 2 items related to how much users feel they need to question the content they see specifically related to actively fact checking the content they see. Factor 4, labeled "Confidence," included 2 items related to how much trust the participants have in the content they are seeing focusing on if they believe that the mental health content on social media is influenced by the agenda of the individual posting it. Finally, factor 5, "Influence on Mental Health," included 1 item related to how much the mental health related content on social media influences

people's attitude towards mental health related topics. Cronbach's alpha coefficients for the factors in this study ranged from .65 to .85. These values indicate an internal consistency from acceptable to good. This suggests that although some factors may be measured with a high degree of reliability, others require further refinement to ensure they are capturing the constructs as intended.

Regression Analysis

Table 3 displays the regression analysis of factors influencing attitudes towards self-diagnosing and skepticism based on mental health related content seen on social media. Younger individuals tend to exhibit a higher inclination toward self-diagnosing mental health conditions based on social media (B = -0.03^* , β = 0.01). Gender also had a correlation to the likelihood that a participant would engage in self diagnosing behaviors. Being male is significantly related to lower self-diagnosing (B = -0.78^* , β = 0.31). Males were also found to have higher rates of skepticism toward the mental health content they were exposed to (B = 0.69^* , β = 0.28). Females are more susceptible to the influence of online mental health information on social media and are less vigilant regarding its accuracy. Lastly, higher levels of education are associated with increased skepticism toward online mental health information (B = -1.83).

Table 1: Sample Characteristics

Table 1

Sample Characteristics

Variables n % M (SD) Age 30.03(8.7) Sex Male 22 21.4 Female 72 69.9 Race American Indian/Alaskan 3 2.9 Native 14 13.6 Asian/Pacific Islander 14 13.6 Black/African American 2 1.9 Hispanic/Latino 39 37.9 White/Caucasian 61 59.2 Education Completed High School 6 5.8 Some College 23 22.3 Associate Degree 6 5.8 Bachelor's Degree 44 42.7 Master's Degree 14 13.6 Doctoral Degree or Higher 1 1 Hours per day on social media 3.23 (1.6) Social Media Type Used Most 23 28.3 Tiktok 44 44.4 Local Media Type Used Most 70 70.7	Sample Characteristics			
Age) Sex Male 22 21.4 Female 72 69.9 Race American Indian/Alaskan 3 2.9 Asian/Pacific Islander 14 13.6 Black/African American 2 1.9 Hispanic/Latino 39 37.9 White/Caucasian 61 59.2 Education Completed High School 6 5.8 Some College 23 22.3 Associate Degree 6 5.8 Bachelor's Degree 44 42.7 Master's Degree 14 13.6 Doctoral Degree or Higher 1 1 Hours per day on social media 3.23 (1.6) Social Media Type Used Most 23 28.3 Tiktok 44 44.4	Variables	n	%	M (SD)
Male 22 21.4 Female 72 69.9 Race American Indian/Alaskan Native 3 2.9 Asian/Pacific Islander 14 13.6 Black/African American 2 1.9 Hispanic/Latino 39 37.9 White/Caucasian 61 59.2 Education Completed High School 6 5.8 Some College 23 22.3 Associate Degree 6 5.8 Bachelor's Degree 44 42.7 Master's Degree 14 13.6 Doctoral Degree or Higher 1 1 Hours per day on social media Social Media Type Used Most Facebook 23 28.3 Tiktok 44 44.4				30.03(8.7
Male 22 21.4 Female 72 69.9 Race American Indian/Alaskan 3 2.9 Asian/Pacific Islander 14 13.6 Black/African American 2 1.9 Hispanic/Latino 39 37.9 White/Caucasian 61 59.2 Education 6 5.8 Some College 23 22.3 Associate Degree 6 5.8 Bachelor's Degree 44 42.7 Master's Degree 14 13.6 Doctoral Degree or Higher 1 1 Hours per day on social media 3.23 (1.6) Social Media Type Used Most 23 28.3 Tiktok 44 44.4	Age)
Female Female Race American Indian/Alaskan Native Asian/Pacific Islander Hispanic/Latino Completed High School Some College Bachelor's Degree Doctoral Degree or Higher Hours per day on social media Social Media Type Used Most Facebook Tiktok American Tital American Tital Tit	Sex			
Race American Indian/Alaskan Native Asian/Pacific Islander Black/African American Hispanic/Latino White/Caucasian Completed High School Completed High School Some College Associate Degree Bachelor's Degree Doctoral Degree or Higher Hours per day on social media Social Media Type Used Most Facebook Tiktok 3 2.9 3 2.9 4 13.6 5 9.2 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5	Male		21.4	
American Indian/Alaskan Native Asian/Pacific Islander Black/African American Hispanic/Latino White/Caucasian Completed High School Some College Associate Degree Bachelor's Degree Master's Degree Hours per day on social media Social Media Type Used Most Facebook Tiktok 3 2.9 1.4 13.6 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	Female	72	69.9	
Native Asian/Pacific Islander Black/African American Hispanic/Latino White/Caucasian Completed High School Some College Associate Degree Bachelor's Degree Master's Degree Hours per day on social media Social Media Type Used Most Facebook Tiktok Asian/Pacific Islander 14 13.6 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	Race			
Asian/Pacific Islander Black/African American Hispanic/Latino White/Caucasian Completed High School Some College Associate Degree Bachelor's Degree Doctoral Degree or Higher Hours per day on social media Social Media Type Used Most Facebook Tiktok 14 13.6 2 1.9 1.9 1.9 1.9 1.9 1.9 1.9		3	2.9	
Black/African American Hispanic/Latino White/Caucasian Completed High School Some College Associate Degree Bachelor's Degree Doctoral Degree or Higher Hours per day on social media Social Media Type Used Most Facebook Tiktok T				
Hispanic/Latino White/Caucasian Education Completed High School Some College Associate Degree Bachelor's Degree Master's Degree Hours per day on social media Social Media Type Used Most Facebook Tiktok 39 37.9 61 59.2 Education 6 5.8 23 22.3 44 42.7 44 42.7 11 11 11 11 11 11 11 11 11 11 11 11 1				
White/Caucasian Education Completed High School Some College Associate Degree Bachelor's Degree Bach		2	1.9	
Education Completed High School Some College 23 22.3 Associate Degree 6 5.8 Bachelor's Degree 44 42.7 Master's Degree 14 13.6 Doctoral Degree or Higher Hours per day on social media Social Media Type Used Most Facebook 23 28.3 Tiktok 44 44.4	-	39	37.9	
Completed High School Some College Associate Degree Bachelor's Deg		61	59.2	
Some College 23 22.3 Associate Degree 6 5.8 Bachelor's Degree 44 42.7 Master's Degree 14 13.6 Doctoral Degree or Higher 1 1 Hours per day on social media 3.23 (1.6) Social Media Type Used Most Facebook 23 28.3 Tiktok 44 44.4	Education			
Associate Degree 6 5.8 Bachelor's Degree 44 42.7 Master's Degree 14 13.6 Doctoral Degree or Higher 1 1 Hours per day on social media 3.23 (1.6) Social Media Type Used Most Facebook 23 28.3 Tiktok 44 44.4	Completed High School	6	5.8	
Bachelor's Degree 44 42.7 Master's Degree 14 13.6 Doctoral Degree or Higher 1 1 Hours per day on social media 3.23 (1.6) Social Media Type Used Most Facebook 23 28.3 Tiktok 44 44.4	Some College	23	22.3	
Master's Degree 14 13.6 Doctoral Degree or Higher 1 1 Hours per day on social media 3.23 (1.6) Social Media Type Used Most Facebook 23 28.3 Tiktok 44 44.4	Associate Degree	6	5.8	
Doctoral Degree or Higher 1 1 Hours per day on social media 3.23 (1.6) Social Media Type Used Most Facebook 23 28.3 Tiktok 44 44.4	Bachelor's Degree	44	42.7	
Doctoral Degree or Higher 1 1 Hours per day on social media 3.23 (1.6) Social Media Type Used Most Facebook 23 28.3 Tiktok 44 44.4	Master's Degree	14	13.6	
Hours per day on social media Social Media Type Used Most Facebook Tiktok 3.23 (1.6) 23 28.3 44 44.4	C	1	1	
Social Media Type Used Most Facebook 23 28.3 Tiktok 44 44.4				3.23 (1.6)
Facebook 23 28.3 Tiktok 44 44.4	-			,
Tiktok 44 44.4	2 1	23	28.3	
	Tiktok	44	44.4	
instagram /U /U./	Instagram	70	70.7	
Snapchat 18 18.2	_			
Reddit 8 8.1	-	_		
X 7 7.1				
Youtube 3 3				
Other 14 14.1		_	_	

Note. N = 99.

Table 2: Factor Analysis

Table 2Factor Analysis of Questionnaire

Questionnaire -		Factor Loading				
Questionnaire	1	2	3	4	5	
Factor 1: Self-Diagnosing How often do you feel that you have found information on social media that helped you understand your mental health better? The following questions will ask you questions regarding social media use. How often do you use social media platforms to read about mental health issues? How often do you feel like you can accurately identify symptoms of a mental health condition based on information you find on social media?	0.79 0.732 0.64					
Factor 2: Stigma How often do you see mental health-related content on social media that uses stigmatizing language/jokes or exaggeration? How often do you see posts or comments on social media that are derogatory or negative towards people with mental health issues? How often do you see mental health-related content on social media that contradicts or challenges what you have learned from other sources?		0.864 0.772 0.605				
Factor 3: Skepticism How often do you fact-check or verify the accuracy of mental health-related content before sharing or reposting it on social media? How often do you feel like you need to confirm mental health information found on social media with a mental health professional before believing it to be true?			0.832			
Factor 4: Confidence When you view mental health-related content on social media, how often do you believe the content is influenced by the agenda of the person or organization posting it? How often do you see mental health-related content on social media that promotes understanding and acceptance of mental health issues?				0.778 0.658		
Factor 5: Influence on Mental Health How much do you agree with this statement: "Mental health-related content on social media can influence people's attitudes towards mental health issues."					0.794	

Note. Factor loadings above .60 are in bold.

Table 3: Regression Analysis

Table 3Regression Analysis on Attitudes toward MH information on Social Media

o ,	Self-Diagnosing		Skept	icism
	\overline{B}	β	\overline{B}	β
Age	-0.03*	0.01	-0.02	-0.17
Male	-0.78*	0.31	0.69*	0.28
Race				
White				
Hispanic/Latino	0.33	0.29	-0.06	-0.03
Asian/Pacific Islander	-0.15	0.29	0.11	0.04
Biracial	0.13	0.41	0.21	0.06
Others	1.36	0.77	-1.14	-0.17
Education				
Completed high school				
Some college	-0.59	0.55	-0.14	-0.06
Associate degree	-1.32	0.68	-1.83*	-0.39
Bachelor's degree	-0.48	0.57	-0.65	-0.31
Master's degree	-0.15	0.59	-0.12	-0.05
Doctoral degree or higher	-0.39	1.28	0.58	0.06
Mediatype				
No social media				
Snapchat	-0.45	0.33	0.19	0.07
X	0.16	0.39	-0.39	-0.11
Reddit	0.27	0.56	0.13	0.03
Others	-0.63	0.32	-0.18	-0.04
Hours per day on social media	0.07	0.09	-0.03	-0.05
Adjusted R^2	0.19		0.08	

^{*}p < .05

Summary

The results of this study suggest that mental health information on social media does influence users' attitudes and behaviors based on specific factors such as age, gender, and level of education. Younger users and females are more likely to engage in self-diagnosing. Males participants have lower rates of self-diagnosing and high skepticism attitudes towards the mental health content they view. The results also indicate that the participants with high education levels also express higher skepticism towards the mental health content they viewed on social media. Historically, many would assume that higher levels of education would increase skepticism rates, however, based on these results there is a higher level of skepticism for those with an associate's degree and the decline in skepticism among those with degrees above an associates level. These results provide insight into how viewing mental health related content on social media directly affects users attitudes and behaviors towards mental health.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

Introduction

The purpose of this study was to examine attitudes toward mental health information on social media sites and the factors associated with these attitudes. Key findings of this study show that demographic variables such as age, gender, and level of education play a role in the level of skepticism and self-diagnosing behaviors participants have.

Discussion of Findings

The findings from this research support the research question that mental health related content on social media does influence users behaviors and attitudes. Despite the limited research on this specific topic, previous literature supports this study's findings. As mental health becomes a more openly discussed topic many social media users may share their own experiences or beliefs about mental health for many reasons. Some may want to spread awareness; others may do so out of rage, fear, or to gain views (Hunt et al., 2018). This study found that women participants have lower skepticism attitudes towards the content they view while also displaying higher levels of self-diagnosing behaviors.

According to Fischer and LaFrance (2015) women tend to be more forthcoming about their emotions which may play a role as to why female participants in this study were more likely to seek out mental health related

material and not only believe what they saw but also engage in self-diagnosing. It's important to note that algorithms are used to continuously generate content that you have previously interacted with, and if women from this study have previously looked into mental health related content it may have exposed them to information that looks trustworthy, evoking an emotional response. Online information that brings up these emotions makes the content more believable (Hunt et al., 2018). Perhaps men from this study were simply just not exposed to as much mental health related information on social media.

Another significant finding is that younger participants are also more likely to engage in self-diagnosing behaviors, which can be due to several reasons. Younger generations who have grown up with the internet may be more comfortable searching for health information via social media as opposed to more traditional methods. Social media platforms tend to offer readily available and easily digestible material, making it easier for the younger generation to access mental health information (Says et al., 2021). Another factor is the younger generations may not have had enough exposure to mental health topics which might contribute to their ability to differentiate between invalid and valid information.

Historically, most would assume that the higher level of education someone has, might make them more skeptical of the content they see online. However, an unexpected finding in the study is that participants with an associate degree had higher skepticism rates than those with higher levels of education. The researcher suggests that this may be due to the participants' lived

experiences or other perpetuating factors. Those with the associate degree may have higher digital literacy than the other participants. They may also have specific socio-economic and or psychological traits that affect their trust in widespread health information.

Implications

Theoretical Implications

The researcher used Social Cognitive Theory (SCT) and Systems Theory to guide the conceptualization of these findings. SCT acknowledges the influence of an individual's experiences such as environmental factors, interactions with others, and how that influences someone's health behaviors. This theory suggests that everyone can be both an influencer and influenced and that someone is more likely to imitate the behavior they see if they experience positive reinforcement (Luszczynska & Schwarzer, 2015). SCT helps demonstrate the differences in participants of this study in how they engage with mental health information on social media based on their age, education, and skepticism levels. Systems Theory identifies the different effects each system has on an individual's development. For this study it helps identify how social, educational, and technological systems impact social media users behaviors after viewing mental health information online.

Implications for Social Work

The results of this study found several themes surrounding users' attitudes and behaviors after viewing mental health content such as: self-diagnosing, stigma, skepticism, confidence and affect on mental health attitudes. These themes suggest that social media has a direct impact on users' behaviors and perceptions. These findings suggest several implications for social work as it relates to mental health advocacy, digital literacy, and policy reform. Education and advocacy surrounding mental health topics can prepare social media users in the way that they are able to identify which content may be exaggerated, romanticized, and or based on personal experiences. Furthermore, encouraging digital literacy will ensure that users can differentiate between accurate and inaccurate mental health information and build more skepticism around the content users are viewing. The results of this study indicated that women and younger participants have lower rates of skepticism and higher rates of self diagnosing, which also indicates a specific need for social workers to implement specific interventions for those populations.

Social workers can also engage in policy changes to contribute to a safer social media environment. Social workers can use data from this study and other research providing evidence that suggests a need for stricter vetting policies on social media. Social workers can collaborate with different social media platforms and tech companies to implement different monitoring practices. Inaccurate information will always be available online however, social workers can educate

and advocate for change in a way that will best support and protect social media users.

Limitations and Recommendations

This research encounters several limitations. The first major limitation was that the researcher had to create their own scale (MHI) which can lead to several barriers including item construction bias, low reliability and validity, as well lack of comparative data. Another limitation is that the sample size was small (n=99), which did not give an accurate snapshot of the general population. The researcher shared their study using their own social media platforms which could have caused response bias as well as not reaching a diverse population. Finally, the age guidelines for this study were also a limitation. Based on the results of this study it would have been insightful to see the data collection of social media users under the age of 18 as younger individuals may be more affected by this mental health information on social media.

Researchers who desired to expand on these findings should motify the (MHI) scale to increase its reliability and validity. If future researchers are able, using a larger and more diverse sample size would give a more accurate picture of how this research question affects the general populations. Future research may also want to focus on directly examining the causal effects of the spread of mental health information on social media as this study focuses on assessing attitudes toward mental health information on social media. Building off of the finding of this study, the goal of future research should be to find specific

interventions to address any negative effects caused by viewing mental health related content on social media.

Conclusion

This study has made a significant impact on the field of social work as it highlights some of the attitudes and behaviors users experience after viewing mental health related content on social media. Uncovering critical insights that age, gender, and education play a role in these attitudes and behaviors, directs future research and social workers to take action. We are quickly moving into a digital age, where social media serves as a primary source of health information and guidance. Although there are many benefits to having access to health information in the palm of your hands, it can quickly become counterproductive and dangerous. The findings from this study have opened a conversation and highlighted a need for specific intervention, policy change, mental health and digital literacy. By expanding on this study and addressing the limitations, the future may uncover the true effects that viewing mental health information on social media has on its users.

APPENDIX A SURVEY QUESTIONS

Demographics

What is your age?

- a. 18-24
- b. 25-34
- c. 35-44
- d. 45-54
- e. 55 or older

What is your gender?

- a. Male
- b. Female
- c. Non-binary
- d. Prefer not to say

What is your race/ethnicity? (Select all that apply)

- a. White/Caucasian
- b. Black/African American
- c. Asian/Pacific Islander
- d. Hispanic/Latino
- e. Native American/Alaska Native
- f Mixed race
- g. Other

What is the highest level of education you have completed?

- a. High school diploma or equivalent
- b. Some college or technical training
- c. Associate's degree
- d. Bachelor's degree
- e. Master's degree
- f. Doctorate or professional degree

Frequency

Which social media platforms do you use most frequently? (Select all that apply) 1)Facebook 2)Twitter 3)Instagram 4)Snapchat 5)TikTok 6)LinkedIn 7)Reddit 8)Other

On average, how many hours per day do you spend using social media? 1)Less than 1 hour 2)1-2 hours 3)2-3 hours 4)3-4 hours 5)More than 4 hours

To what extent do you agree with this statement: "I feel confident in my understanding of mental health"?

1)Strongly disagree 2)Somewhat disagree 3)Neutral 4)Somewhat agree 5)Strongly agree

Confidence

- 1. How often do you use social media platforms to read about mental health issues? 1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often
- 2. How often do you fact-check or verify the accuracy of mental health-related content before sharing or reposting it on social media?

 1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often
- 3. How much do you believe that mental health-related content on social media is influenced by the agenda of the person or organization posting it?

 1)Not at all 2)A little bit 3)Somewhat 4)Very much 5)Completely
- 4. How often do you see mental health-related content on social media that contradicts or challenges what you have learned from other sources?

 1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often
- 5. How much do you trust mental health-related information on social media from accounts or individuals with large followings1)Not at all 2)A little bit 3)Somewhat 4)Very much 5)Completely

Stigma

- How often do you see posts or comments on social media that are derogatory or negative towards people with mental health issues?
 1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often
- 2. How much do you believe that mental health-related content on social media can influence people's attitudes towards mental health issues?1)Not at all 2)A little bit 3)Somewhat 4)Very much 5)Completely
- How often do you see mental health-related content on social media that promotes understanding and acceptance of mental health issues?
 1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often
- 4. How often do you see mental health-related content on social media that promotes understanding and acceptance of mental health issues?1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often

5. How often do you see mental health-related content on social media that uses stigmatizing language/jokes or exaggeration?

1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often

Self Diagnosing

- How often do you feel like you can accurately identify symptoms of a mental health condition based on information you find on social media?
 Never 2)Rarely 3)Sometimes 4)Often 5)Very often
- 2. How often have you self-diagnosed a mental health condition based on information you found on social media?1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often
- 3. How often do you feel that you have found information on social media that helped you understand your mental health better?1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often
- 4. How often do you feel like you need to confirm mental health information found on social media with a mental health professional before believing it to be true? 1)Never 2)Rarely 3)Sometimes 4)Often 5)Very often
- 5. How much do you believe that self-diagnosing based on information found on social media can lead to incorrect treatment?1)Not at all 2)A little bit 3)Somewhat 4)Very much 5)Completely

^{*}These survey questions were created by researcher Kathleen Knarreborg for this specific study.

APPENDIX B FLYER



WE DEFINE THE Future

School of Social Work

CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO 5500 University Parkway, San Bernardino, CA 92407 909-587-5501 | fac 500-587-7009 http://docialwork.cush.edu

Mental Health Information On Social Media

100 Participants Reeded

Purpose of the study The purpose of this study is to investigate how exposure to mental health misinformation on social media affects individuals. The information you provide will be crucial in helping us understand the impact of mental health information on social media on individuals' thoughts, beliefs, and attitudes towards mental health. Your participation is entirely voluntary, and you have the right to withdraw at any time without providing any reason. Your participation in this study is greatly appreciated, and the results of this study will be used to improve mental health education and awareness on social media platforms. If you have any questions or concerns about the study, please do not hesitate to contact us.

Eligibility of participants Those who meet the following eligibility criteria will be able to participate:

- 1. 18 years or older
- 2. Have at least one social media account

Time and other commitment Your participation is voluntary and all your answers to the questions will be kept confidential. It will take about 5-10 minutes for you to complete the survey/interview.

Benefits/incentive for participation Findings from this study will add to the literature in the area of social work and benefit mental health professionals, social media users, and policymakers.

(How to participate) If interested, please click the Online survey link or scan QR code: Contact information

Questions/concerns?

Contact Kathleen Knarreborg, Student Researcher, anytime at 005227478@coyote.csusb.edu, or

Research Supervisor, Dr. Yawen Li at yawen.li@csusb.edu or via phone at (909) 537-5584.

IRB Approval Number This study has been approved by the California State University, San Bernardino Institutional Review Board. (IRB#: IRB-FY2023-354)

The Colifornia State University - Selectfield - Channel Mants - Chie - Confeque Fills - Bes Sty - Franco - Fulleston - Humbolts - Long Sect. - Lon Angelos

APPENDIX C INFORMED CONSENT





School of Social Work

CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO 5500 University Parkway, San Bernardino, CA 93407 909.537.5501 | fax: 909.537.7029 http://sccialwork.csanb.edu

INFORMED CONSENT

The study in which you are asked to participate is designed to examine how viewing mental health misinformation on social media affects users. The study is being conducted by Kathleen Knarreborg, a graduate student, under the supervision of Dr. Yawen Li, Professor and Research Coordinator in the School of Social Work at California. State University, San Bernardino (CSUSB). The study has been approved by the Institutional Review Board at CSUSB.

PURPO 8E: The purpose of this study is to investigate how exposure to mental health misinformation on social media affects individuals.

DE 8CRIPTION: Participants will be asked a few questions about their experience viewing mental health information online as well as some demographic information.

PARTICIPATION: Your participation in the study is totally voluntary. You can refuse to participate in the study or discontinue your participation at any time without any consequences.

CONFIDENTIALITY: Your responses will remain confidential and data will be reported in group form only.

DURATION: It will take 5 to 10 minutes to complete the survey.

RISK 3: Although not anticipated, there may be some discomfort in answering some of the questions. You are not required to answer and can skip the question or end your participation.

BENEFIT 8: There will not be any direct benefits to the participants.

CONTACT: If you have any questions about this study, please feel free to contact Dr. Li at (909) 537-5584.

RESULT & Results of the study can be obtained from the Pfau Library ScholarWorks database (http://scholarworks.lib.csusb.edu/) at California State University, San Bernardino after July 2024.

I understand that I must be 18 years of age or older to participate in your study, have read and understand the consent document and agree to participate in your study.

Place an X mark here Date

APPENDIX D
IRB APPROVAL



September 15, 2023

CSUSB INSTITUTIONAL REVIEW BOARD

Administrative/Exempt Review Determination

Status: Determined Exempt

IRB-FY2023-354

Yawen Li Kathleen Knarreborg

CSBS - Social Work, Users loaded with unmatched Organization affiliation.

California State University, San Bernardino

5500 University Parkway

San Bernardino, California 92407

Dear Yawen Li Kathleen Knarreborg:

Your application to use human subjects, titled "Misinformation on Social Media Told Me I have a Mental Illness" has been reviewed and determined exempt by the Chair of the Institutional Review Board (IRB) of CSU, San Bernardino. An exempt determination means your study had met the federal requirements for exempt status under 45 CFR 46.104. The CSUSB IRB has weighed the risks and benefits of the study to ensure the protection of human participants.

This approval notice does not replace any departmental or additional campus approvals which may be required including access to CSUSB campus facilities and affiliate campuses. Investigators should consider the changing COVID-19 circumstances based on current CDC, California Department of Public Health, and campus guidance and submit appropriate protocol modifications to the IRB as needed. CSUSB campus and affiliate health screenings should be completed for all campus human research related activities. Human research activities conducted at off-campus sites should follow CDC, California Department of Public Health, and local guidance. See CSUSB's COVID-19 Prevention Plan for more information regarding campus requirements.

You are required to notify the IRB of the following as mandated by the Office of Human Research Protections (OHRP) federal regulations 45 CFR 46 and CSUSB IRB policy. The forms (modification, renewal, unanticipated/adverse event, study closure) are located in the Cayuse IRB System with instructions provided on the IRB Applications, Forms, and Submission webpage. Failure to notify the IRB of the following requirements may result in disciplinary action. The Cayuse IRB system will notify you when your protocol is due for renewal. Ensure you file your protocol renewal and continuing review form through the Cayuse IRB system to keep your protocol current and active unless you have completed your study.

REFERENCES

- Alonzo, R., Hussain, J., Stranges, S., & Anderson, K. K. (2021). Interplay between social media use, sleep quality, and mental health in youth: A systematic review. *Sleep Medicine Reviews*, *56*, 101414.
- Ahmad, & Murad, H. R. (2020). The Impact of Social Media on Panic During the COVID-19 Pandemic in Iraqi Kurdistan: Online Questionnaire Study.

 Journal of Medical Internet Research, 22(5), e19556–e19556.

 https://doi.org/10.2196/19556
- Brand, M., Young, K. S., Laier, C., Wölfling, K., & Potenza, M. N. (2016).

 Integrating psychological and neurobiological considerations regarding the development and maintenance of specific Internet-use disorders: An Interaction of Person-Affect-Cognition-Execution (I-PACE)

 model. Neuroscience & Biobehavioral Reviews, 71, 252-266.
- D.Says:, J., Deansays:, B., Karlottasays:, T., McEvoysays:, S., & D. & Andreasays: (2021, October 10). How many people use Social Media in 2022? (65+ statistics). Backlinko. Retrieved September 16, 2022, from https://backlinko.com/social-media-users
- Ecker, U. K., Lewandowsky, S., Cook, J., Schmid, P., Fazio, L. K., Brashier, N., ...
 & Amazeen, M. A. (2022). The psychological drivers of misinformation
 belief and its resistance to correction. *Nature Reviews Psychology*, 1(1),
 13-29.

- Feng, Y., Ma, Y., & Zhong, Q. (2019). The relationship between adolescents' stress and internet addiction: A mediated-moderation model. *Frontiers in psychology*, *10*, 2248.
- Fischer, A., & LaFrance, M. (2015). What Drives the Smile and the Tear: Why Women Are More Emotionally Expressive Than Men. *Emotion Review*, 7(1), 22-29. https://doi.org/10.1177/1754073914544406
- Frenda, S. J., Knowles, E. D., Saletan, W., & Loftus, E. F. (2013). False memories of fabricated political events. *Journal of Experimental Social Psychology*, **49**(2), 280–286. https://doi.org/10.1016/j.jesp.2012.10.013
- Greenspan, R. L., & Loftus, E. F. (2021). Pandemics and Infodemics: Research on the Effects of Misinformation on Memory. *Human Behavior and Emerging Technologies*, *3*(1), 8-12.
- Guelmami, N., ben Khalifa, M., Chalghaf, N., Kong, J. D., Amayra, T., Wu, J., ... & Bragazzi, N. L. (2021). Preliminary development of the social media disinformation scale (SMDS-12) and its association with social media addiction and mental health: COVID-19 as a pilot case study. *JMIR Formative Research*, *5*(6), e27280.
- Hammad MA, Alqarni TM. Psychosocial effects of social media on the Saudi society during the Coronavirus Disease 2019 pandemic: A

 Cross-Sectional study. PLoS One. 2021 Mar 18;16(3):e0248811. doi: 10.1371/journal.pone.0248811. PMID: 33735309; PMCID: PMC7971843.

- Hannah E. Karpman & James Drisko (2016) Social Media Policy in Social Work

 Education: A Review and Recommendations, Journal of Social Work

 Education, 52:4, 398-408, DOI: 10.1080/10437797.2016.1202164
- Hunt, D., Robertson, D., & Pow, A. (2018). The Counselor's Role in the Age of Social Media and Fake News. *Journal of Creativity in Mental Health*, 13(4), 405–417. https://doi.org/10.1080/15401383.2018.1462748
- Jabbour, D., Masri, J. E., Nawfal, R., Malaeb, D., & Salameh, P. (2022). Social media medical misinformation: impact on mental health and vaccination decision among university students. *Irish Journal of Medical Science* (1971-), 1-11.
- Kłak, Gawińska, E., Samoliński, B., & Raciborski, F. (2017). Dr Google as the Source of Health Information – the results of pilot qualitative study. Polish Annals of Medicine, 24(2),188–193.
 https://doi.org/10.1016/j.poamed.2017.02.002
- Li, Y., Zhang, X., and Wang, S. 2017. "Fake vs. Real Health Information in Social Media in China," Proceedings of the Association for Information Science and Technology (54:1), pp. 742-743.
- Luszczynska, A., & Schwarzer, R. (2015). Social cognitive theory. *Fac Health Sci Publ*, 2015, 225-251.
- Nesi, J. (2020). The Impact of social media on Youth Mental Health: Challenges and Opportunities. *North Carolina Medical Journal (Durham, N.C.)*, *81*(2), 116–121. https://doi.org/10.18043/ncm.81.2.116

- Norris, C. J. (2021). The Negativity Bias, Revisited: Evidence from Neuroscience Measures and an Individual Differences Approach. *Social neuroscience*, *16*(1), 68-82.
- Sha, P., & Dong, X. (2021). Research on Adolescents Regarding the Indirect

 Effect of Depression, Anxiety, and Stress Between TikTok Use Disorder

 and Memory Loss. *International journal of environmental research and*public health, 18(16), 8820. https://doi.org/10.3390/ijerph18168820
- Sharma, M. K., Anand, N., Vishwakarma, A., Sahu, M., Thakur, P. C., Mondal, I., ... & Murthy, K. D. (2020). Mental Health Issues Mediate Social Media Use in Rumors: Implication for Media Based Mental Health Literacy. *Asian journal of psychiatry*, *53*, 102132.
- Steers, ML.N., Moreno, M.A. & Neighbors, C. The Influence of Social Media on Addictive Behaviors in College Students. *Curr Addict Rep* **3**, 343–348 (2016). https://doi.org/10.1007/s40429-016-0123-x
- Suciu, P. (2022, November 9). Americans Spent on Average More Than 1,300

 Hours on Social Media Last Year. Forbes. Retrieved November 15, 2022,

 from
 - https://www.forbes.com/sites/petersuciu/2021/06/24/americans-spent-more-than-1300-hours-on-social-media/?sh=4c989a252547
- Verma, G., Bhardwaj, A., Aledavood, T., De Choudhury, M., & Kumar, S. (2022).

 Examining the impact of sharing COVID-19 misinformation online on

mental health. *Scientific reports*, *12*(1), 8045. https://doi.org/10.1038/s41598-022-11488-y

Wilcox, K., & Stephen, A. T. (2013). Are close friends the enemy? Online social networks, self-esteem, and self-control. *Journal of Consumer research*, *40*(1), 90-103.