12-14-2021

Webs of Social Support for Mental Health: An Examination of College Students' Social Support Seeking Behavior on Social Media

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by

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Under the Direction of Cynthia A. Hoffner, PhD

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

2021

ABSTRACT

College students' mental health has been a growing public health concern, as they have been reporting very low levels of emotional well-being. Drawing from social cognitive theory (Bandura, 1986) and the modified labeling theory (Link et al., 1989), this study sought to examine the role of life stressors, emotional well-being, self-efficacy of help-seeking, outcome expectations, and stigma in college students' social media-based support seeking. Undergraduate students were recruited from communication classes at Georgia State University to complete an online, self-administered survey. The final sample size was 940.

Respondents reported seeing other people seek social media-based support for mental health more frequently than they reported they do so themselves. Instagram was the platform they reported using the most for mental health support. Furthermore, they reported greater expected positive outcomes than expected negative outcomes of seeking social media-based support.

As predicted, life stressors (including COVID-19 related stressors), self-efficacy, and expected positive outcomes were all positive predictors of social media-based support seeking, whereas emotional well-being was a negative predictor. Unexpectedly, perceived public stigma did not predict social support seeking, and self-stigma was a positive predictor. A mediation analysis found that emotional well-being mediated the effect of life stressors on social media-based support seeking. A moderation analysis found that emotional well-being was more strongly associated with social support seeking when expected negative outcomes were lower. However, there was no evidence for the moderating roles of self-efficacy, perceived public stigma, or self-stigma.

The results show that social cognitive theory is a useful theoretical framework for understanding social media-based support seeking. Specifically, the study adds evidence to health communication literature that self-efficacy and more positive and less negative outcome expectations promote social media-based support seeking. However, stigma does not appear to function as a barrier to support seeking in the context of social media. This still suggests usefulness of labeling theory, as mental health support might be sought on social media in ways that avoid stigmatizing labels. Findings suggest that practitioners designing social media-based support interventions should use strategies/tools that increase self-efficacy of help-seeking, facilitate positive feedback, and disable features allowing dislikes or offensive feedback.

INDEX WORDS: College students, Mental health, Health communication, Self-efficacy, Expected outcomes, Stigma, Social support, Social media

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December 2021

DEDICATION

I would like to dedicate this dissertation to my family in Turkey. I want to express my deepest gratitude and love to my parents. I succeeded in finishing this process thanks to their unconditional love, support, and belief in my dream. Now I am very happy that I have made them proud. I doubted myself many times in this challenging journey and felt exhausted. At times I thought of giving up, but God sent reminders through great people that I can do this. I would like to thank my precious parents, Kutluhan Basaran and Cemal Basaran, in Turkey as well as my precious friends Nancy Leitch, Bob Leitch, Elena Poliokova, Sarah Ku, and Pollyana Galvao here in Atlanta. I love you all. I am grateful that you are all in my life.

ACKNOWLEDGEMENTS

I would like to express my special gratitude to Dr. Cynthia Hoffner for serving as my dissertation committee chair and for providing her valuable feedback and guidance throughout this challenging journey. In addition, she has also provided great psychological support, as writing a doctoral dissertation requires mental stamina. Therefore, I would like to emphasize my deep appreciation to her.

I also would like to thank my committee members, Dr. Holley Wilkin, Dr. Carrie Freeman, and Dr. Elizabeth Tighe for their valuable insights. Their important feedback have improved the quality of this dissertation research.

I am also grateful to my professors as well as my fellow graduate students at Georgia State University for they all nurtured me on various topics in the fields of media, communication, and psychology. I believe that the valuable learning experience and knowledge I gained through my interactions with them will serve me for a lifetime.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1 INTRODUCTION

Mental health problems among college students have been a growing public health concern (Pedrelli, Nyer, Yeung, Zulauf, & Wilens, 2015; Son, Hegde, Smith, Wang, & Sasangohar, 2020). In the process of transitioning into adulthood, many students suffer from emotional challenges arising in this period as well as from the stressful college environment (Hunt & Eisenberg, 2010; Iarovici, 2014). During this period, some also start or increase alcohol and drug use while facing new or worsening mental health issues (Pedrelli et al., 2015). Early studies indeed indicated problems regarding the increasing severity and prevalence of psychological distress as well as low emotional well-being among college students (Iarovici, 2014). More recently, American College Health Association-National College Health Assessment (ACHA-NCHA) surveyed 96,489 college students in their latest report and found that 24% experienced serious psychological distress in the prior year while 26.5% were screened positive for suicidal behavior (American College Health Association, 2021). Furthermore, COVID-19 pandemic has been exacerbating this problem. Mental health has especially been an important public health concern around the world as a result of the COVID-19 virus that emerged in China in December 2019 and was declared a pandemic in March 2020 (Ellis, Dumas, & Forbes, 2020; Marroquín, Vine, & Morgan, 2020). Because COVID-19 has high transmission and mortality rates, strict public health as well as quarantine measures and social isolation have been inevitable to successfully contain the virus. This social isolation coupled with fear of infection, job losses, and stress resulting from the uncertainty of future have had a deep impact on global mental health (Ellis et al., 2020). College students' well-being has also been negatively influenced at this time due to loss of part-time jobs, fear of infection, isolation from their families

as well as friends, struggles with adjusting to online learning, and more (Khan, Mamun, & Griffiths, & Ullah, 2020; Lee, 2020; Zhai & Du, 2020).

Although college students frequently report low levels of emotional well-being, they exhibit poor professional/formal help-seeking behaviors for their mental health problems (Goodwin, Behan, Kelly, McCarthy, & Horgan, 2016). Previous research showed that college students are inclined to seek informal help from friends, family, and significant others instead of formal help from professionals (Cho & Huang, 2017; DeLoveh & Cattaneo, 2017; Eisenberg, Hunt, & Speer, 2012; Goodwin et al., 2016; Kenny, Dooley, Fitzgerald, 2016; McDermott et al., 2018; Wiljer et al., 2016). Seeking social support is a form of informal help-seeking, which is an effective coping strategy that college students make use of at times of elevated stress or difficult situations (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Frison & Eggermont, 2015; Roth & Cohen, 1986). Nevertheless, past research also revealed that young adults prefer seeking online social support more than the traditional, offline social support (Rickwood, Mazzer, & Telford, 2015) because they perceive the online environment as a better resource of help for sensitive issues like mental health problems (Goodwin et al., 2016). Most importantly, studies found that college students use especially social media platforms to fulfill a variety of important needs including social support (Wright, 2012; Zhang, 2017), and they are also likely to prefer discussing their mental health concerns on these sites and apps (Moreno et al., 2011). These findings are even more relevant considering that from 2005 to 2019, the percentage of individuals ages 18 to 29 who report using social media has soared from 9 to 90% (Pew Research Center, 2019). In addition, social media platforms and mobile apps have a variety of affordances such as accessibility, privacy control, interactivity, and conversation control (Fox

& McEwan, 2020), which create a suitable climate for social support exchange (Meng, Martinez, Holmstrom, Chung, & Cox, 2017).

Research has found that college students often use social media platforms for seeking and providing various types of social support and documented the benefits of social media-based support for their well-being (Ellison, Steinfield, & Lampe, 2007; Indian & Grieve, 2014; Manago, Taylor, & Greenfield, 2012; Nabi, Prestin, & So, 2013; Wright 2012; Zhang 2017). While studies have investigated outcomes of social media use as well as types of social support sought and provided among college students, no research has been located that examined the factors that may predict college students' mental health related social support seeking behavior on social media sites and apps.

Social cognitive theory is a useful theoretical framework that has been applied to understand various health behaviors among college students, such as exercise and nutrition behavior (Bandura, 2004; Kanekar, Sharma, & Bennett, 2015; Joseph, Royse, Benitez, & Pekmezi, 2014; Olander et al., 2013; Williams & French, 2011). Bandura (2004) determined four factors that have an impact on health behavior: (1) knowledge of benefits and risks of a health behavior; (2) self-efficacy; (3) outcome expectations; and (4) perceived barriers to and facilitators of enacting a health behavior. Among these factors, self-efficacy is the foundation of the social cognitive theory, which refers to a person's ability to exercise control over their behavior (Bandura, 2004). Previous research has indeed shown that self-efficacy is a particularly important concept that predicts health behavior, such as practicing safe sex, among college students (Kanekar et al., 2015; Stacey, James, Chapman, Courneya, & Lubans 2015). In addition, outcome expectations pertaining to the anticipated costs and benefits a health behavior would

generate as well as perceived barriers to adopting a health behavior are also important components of the social cognitive theory (Bandura, 1986, 2004; Huck, Brooks, & Chan, 2019).

Self-efficacy and outcome expectations tie closely to stigma and labeling associated with mental health problems in the context of mental health related help-seeking behaviors. Therefore, another theoretical framework useful in understanding mental health support seeking behavior is the modified labeling theory. This theory suggests that when people facing mental illness believe as well as fear that others will reject and stigmatize them, they tend to avoid asking for or availing help (Link, Cullen, Struening, Shrout, & Dohrenwend, 1989). Outcomes that individuals expect when they perform a health behavior like help-seeking can take various forms, such as physical outcomes (e.g., pleasing or undesirable effects of the target behavior), social outcomes (e.g., beliefs concerning approval or disapproval the target behavior might evoke in one's relationship with others), and the self-evaluative reactions resulting from an individual's behavior (e.g., self-satisfaction or self-dissatisfaction) (Bandura, 1986, 2004). Particularly the expected social outcomes (e.g., beliefs concerning approval or disapproval the target behavior might evoke in one's relationship with others) are closely related to people's beliefs that others will reject, stigmatize, or label them when they seek help. Studies have indeed found that fear of negative judgment makes individuals with mental health concerns as well as various other stigmatized conditions adopt a guarded approach to coping and hesitate to seek help (DeLoveh & Cattaneo, 2017; Jennings, Ralston, & Schatz, 2020). Similarly, perceived barriers to adopting health behaviors are also an important aspect of the social cognitive theory and represent a challenge in the context of mental health related help-seeking. Research has consistently shown that stigma is a significant barrier to performing help-seeking behaviors for mental health problems (Jennings et al., 2015; Laidlaw, McLellan, & Ozakinci, 2016; Seamark & Gabriel,

2018). Past research has also revealed that people with mental health issues often perceive public stigma and feel shame or self-stigma, thus holding back from seeking help to steer clear of being labeled as crazy (Mulfinger et al., 2019; Pattyn, Verhaeghe, Sercu, & Bracke, 2014).

The current pandemic crisis in the world has been profoundly affecting already fragile mental health of many people, including college students. In addition, the growing number of college students who use social media sites and apps to fulfill a plethora of needs, such as social support exchange for mental health concerns, render theoretically sound research on college students' social media-based support seeking in this context relevant and require empirical studies. However, no research has been located that investigated what predicts college students' mental health related social support seeking behavior on various social media platforms and apps. In addition, there has been a very limited use of theoretical frameworks to guide research on mental health related help-seeking in online contexts (Pretorius, Chambers, & Coyle, 2019). Social cognitive theory (SCT) may provide an overarching framework to understand mental health support seeking on social media. Self-efficacy beliefs, the cornerstone of SCT referring to individuals' beliefs about their ability to exercise control over a behavior, have been shown to correlate with health practices like stress management, problem solving, and coping behaviors (Jackson, Tucker, & Herman, 2007; Li, Eschenauer, & Persaud, 2018). Considering that performance of stress management, problem solving, and coping behaviors are actions closely related to mental health support seeking behaviors, SCT might serve as a useful theoretical lens in this context. Self-efficacy beliefs may also be especially relevant in the context of social media-based support seeking because social media platforms/apps entail that users exert greater control over their support seeking journey. Thus, this study aims to help in uncovering whether

self-efficacy of help-seeking may affect social media-based support seeking for mental health problems.

Social cognitive theory also suggests that humans can learn through both direct and observational experience (Bandura, 1986, 2004, 2009). Observational experience serves a particularly important role because much social learning occurs when one observes other people's behaviors and consequences of those behaviors for them (Bandura, 1986, 2009). In the context of mental health support seeking on social media, people can observe other users' support seeking behaviors. Furthermore, people also form beliefs about what outcomes their behaviors would produce through direct or observational learning (Bandura, 1986, 2004). As mentioned above, some outcomes, such as social outcomes (e.g., beliefs regarding social norms and others' reactions to performance of a behavior), may act as barriers to the performance of a health behavior like mental health support seeking. This also connects to Link et al.'s (1989) labeling theory, which argues that when individuals fear being rejected and stigmatized by others, they tend to avoid seeking help (Link et al.,1989). Therefore, using SCT as a framework, this study aims to contribute to uncovering whether and how self-efficacy of help-seeking as well as outcome expectations and barriers/stigma may be influencing mental health support seeking on social media.

In addition, most social media-based support studies have focused on outcomes achieved and types and sources of social support on Facebook and Twitter (Meng et al., 2017). Although the top two most popular and frequently used social media among college students are Instagram and Snapchat (Alhabash & Ma, 2017), these social media platforms/apps have rarely been examined in relation to social support. Most importantly, ever growing social media platforms and apps have a plethora of technological affordances and features, offer privacy and interaction

control to differing extents, connect users with their already existing offline connections and strangers, and serve different purposes (e.g., entertainment/fun, self-expression/documentation, professional networking) (Fox & McEwan, 2020). This may impact what outcomes individual users expect from seeking support on each specific social media platform/app and how this translates to use of a specific platform/app more than others for mental health support seeking. Nevertheless, no research has been located that addresses these questions. Hence, this study also aims to contribute to an understanding of how outcome expectations may guide people to use specific social media platforms/apps more than others for mental health support seeking.

Overall, to fill these research gaps, this study examines the factors that may influence college students' social support seeking behavior on various social media platforms and apps, including the popular but understudied ones (i.e., Instagram, Snapchat, and TikTok) using social cognitive theory as its theoretical ground. Based on this objective, this project explores college students' use of five different social media platforms/apps (Facebook, Twitter, Instagram, Snapchat, and TikTok) for mental health support seeking, their perceptions of other people's use of these platforms/apps for mental health support seeking, and outcome expectations associated with seeking social support. Further, it investigates the influence of life stressors, emotional well-being, self-efficacy of help-seeking, expected positive and negative outcomes, and perceived public stigma and self-stigma on college students' social media-based support seeking behavior. Thus, this study contributes to the theoretical foundation of the role of self-efficacy, outcome expectations, and barriers/stigma in driving coping and social support seeking behaviors.

2 LITERATURE REVIEW

2.1 Mental Health Problems

Mental health is an integral aspect of general health and well-being and is described as a state of being in which individuals are aware of their own abilities to cope with the life stressors as well as capable of working productively and contributing to their communities (World Health Organization, 2013). Mental illness, on the other hand, is a type of disability that includes a broad range of diagnoses with specific challenges and symptoms (Corrigan & Kosyluk, 2014). There are various types of mental disorders that present differently, yet they are usually identified by a combination of abnormal emotions, thoughts, and actions (World Health Organization, 2019a). Among the determinants of mental health and mental illness are personal factors, such as one's ability to manage their emotions, thoughts, actions as well as interactions with others, and cultural, social, and economic attributes, such as living standards, social support, working conditions, and national policies (World Health Organization, 2013). In addition, vulnerability to mental health issues tends to be higher in certain individuals and groups such as people living with chronic health issues, children and adolescents facing adversity, minority groups, people living in poverty, LGBQT people, and people exposed to conflict, crisis, and disasters (World Health Organization, 2013).

The adverse effects of mental health problems worldwide. The burden of mental illness is increasing not only with profound effects on health but also with significant human rights, social, and economic ramifications around the world (World Health Organization, 2019a). People with mental illness suffer from higher rates of premature dying and disability (World Health Organization, 2013). Serious mental disorders include but are not limited to depression, anxiety, schizophrenia, substance use, and bipolar disorder (Corrigan & Kosyluk, 2014; World

Health Organization, 2019a). Among those, depression and anxiety disorders are referred to as common mental disorders due to their high prevalence in the general population, and they exert an influence on the mood or emotions of those affected while ranging in terms of duration and severity (World Health Organization, 2017). The total number of people with depression alone was estimated to be more than 300 million worldwide in 2015, and it was ranked as the biggest contributor to disability while anxiety was ranked sixth (World Health Organization, 2017). In addition, people with depression and anxiety have a 40% to 60% higher likelihood of dying prematurely (World Health Organization, 2013). Research shows that potential drivers in the causal path between mental disorders and premature death may include higher rates of physical health problems and unhealthy behaviors (e.g., lower frequency of exercise, smoking, substance use) (Pratt, Druss, Manderscheid, & Walker, 2016). Most importantly, there are 800,000 deaths from suicide in a year, and it is the most common cause of death among young people (World Health Organization, 2019b).

Mental health problems among college students. One of the most important public health issues among young adults in the United States relates to mental disorders because these account for almost half of the disease burden for this population (Hunt & Eisenberg, 2010). Indeed, a majority of lifetime mental illnesses have their onset between ages 17 to 24 (Hunt & Eisenberg, 2010). Mental health problems are common especially among college students and represent a growing concern because college can be quite stressful not only due to academic pressure but also due to issues such as separation from family of origin or new work and life responsibilities (Kroshus, Hawrilenko, & Browning, 2021; Pedrelli et al., 2015). Also, many students go through developmental milestones while transitioning into adulthood and suffer from emotional challenges emerging in this period coupled with the stressful college environment

(Hunt & Eisenberg, 2010; Iarovici, 2014). Within this context, some also experience the initial onset or increase in alcohol and drug use as well as new or worsening mental health problems (Pedrelli et al., 2015). This is especially problematic because increasing alcohol and drug use can lead to or exacerbate signs and symptoms of anxiety, depression, antisocial behavior, psychosis and more (Shivani, Goldsmith, & Anthenelli, 2002).

American College Health Association-National College Health Assessment (ACHA-NCHA) surveyed 96,489 college students in their latest report and found that 24% experienced serious psychological distress in the prior year while 26.5% were screened positive for suicidal behavior (ACHA, 2021). Many earlier studies also indicated similar problems concerning the severity as well as prevalence of psychological distress and low emotional well-being among college students (Iarovici, 2014). One of the ramifications of this problem is that those struggling with mental health related problems are twice as likely to leave college as students without mental health struggles (Cuijpers et al., 2019). Furthermore, specific mental illnesses seem to be increasing both in number and severity among this population (Hunt & Eisenberg, 2010; Iarovici, 2014). Illnesses such as depression, self-injury behavior, suicidal thoughts, anxiety, and eating disorders are not only prevalent among college students, but also tend to persist even after students leave college (Pedrelli et al., 2015). Mental health problems in college years are also related to adverse outcomes in the long-run, such as labor market and relationship dysfunction as well as persistent physical health and emotional problems (Bruffaerts et al., 2018).

2.2 Theoretical Grounding of the Research

How college students cope or respond to life stressors is of critical importance, if they are to maintain good mental health (Frison & Eggermont, 2015). There are various emotional, cognitive, and behavioral coping strategies that individuals can employ at times of heightened

stress or difficult situations (Compas et al., 2001; Frison & Eggermont, 2015). Seeking social support is one of the most common coping strategies (Roth & Cohen, 1986). Social support is defined as social interaction through which information, instrumental help, or emotional problems are expressed, perceived, or received (Frison & Eggermont, 2015). As a multidimensional construct, social support includes various types (e.g., informational, emotional, instrumental) that can be sought and received from various sources (e.g., family, significant other, friends, colleagues/peers) (Malecki & Demaray, 2003). Research has shown that young people frequently employ social support seeking as an active coping strategy (e.g., emotional support seeking from peers/friends) (Frison & Eggermont, 2015; Zimmer-Gembeck & Skinner, 2011).

As a coping behavior, social support seeking involves a purposeful, active process, by which a person responds to stimuli assessed as exceeding their own resources (Frison & Eggermont, 2015). Social support seeking entails the emotional skills to recognize and admit a problem, the cognitive skills and capacity to know where as well as how to receive help, and the motivation to enact the appropriate behaviors to seek help (Moore, Schofield, van Rooyen, & Andersson, 2015). These support seeking-related domains (e.g., cognitive and emotional skills, motivation, behavior) are influenced by self-efficacy, which refers to individuals' beliefs concerning their capabilities to perform certain behavior (Moore et al., 2015). Research also suggests that cognitive appraisal affects help and support seeking behavior (Biddle, Donovan, Sharp, & Gunnell, 2007; Rickwood, Deane, Wilson, & Ciarrochi, 2005). Therefore, negative evaluation of one's ability to succeed in seeking support (i.e., low self-efficacy for social support seeking) may impede social support seeking (Moore et al., 2015). However, despite of this connection between self-efficacy beliefs and social support seeking behavior, self-efficacy

remains under-researched in this realm (Moore et al., 2015). Self-efficacy is indeed critical to performance of various health-related behaviors, and it is a central component of Albert Bandura's social cognitive theory (Bandura, 1998, 2004).

2.2.1 Social Cognitive Theory

Introduced by Albert Bandura, social cognitive theory (SCT) was developed as a model of human functioning that emphasizes the vitality of vicarious, cognitive, self-regulatory as well as self-reflective processes in human adaptation and change (Pajares, Prestin, Chen, & Nabi, 2009). According to SCT, humans are proactive, self-organizing, self-regulating, and self-reflecting beings, and cognition and self-efficacy play a pivotal role in one's ability to construct reality, self-regulate, and take action (Bandura, 2009; Pajares et al., 2009). Therefore, human agency as well as capabilities, vicarious learning, and self-efficacy are the foundations of the social cognitive theory (Bandura, 2009; Pajares et al., 2009).

Social cognitive theory (SCT) revolves around the idea that humans can learn through both direct and observational experience (Bandura, 1986, 2004, 2009). Referring to the latter as vicarious capability, Bandura (1986; 2009) argues that human capacity for observational learning enables them to enhance their skills and knowledge via information delivered by models. Indeed, much social learning can occur vicariously when individuals observe others' actions as well as the consequences of those actions for them (Bandura, 1986; 2009).

In social cognitive theory, modeling is an important phenomenon that describes a psychosocial matching process with three main functions (Bandura, 1986). Observational learning effects represent the first function of modeling influences. In this context, observers gain new behavior patterns simply through observation of others' performances. Response facilitation effects are the second function of modeling effects, which occur when models prompt

observers' previously learned behaviors. Inhibitory and disinhibitory effects are the third function of modeling influences. The impact of modeling on observers' behaviors depends on the information delivered regarding the possible outcomes as well as performability of the modeled behavior. The strength and direction of the influence of such information on behavior is contingent on three factors. The first factor is observers' perception of a modeled behavior as generating rewarding or punishing results, while the second factor is their inferences that they would experience the same rewarding or punishing results if they were to perform the same behavior. Inhibitory and disinhibitory effects emerge as a result of these two factors. Inhibitory effects occur when observers reduce or avoid the performance of a modeled behavior due to observing the punishing consequences that models experience. On the other hand, disinhibitory effects are indicated when observers increase the performance of a modeled behavior after observing that models engage in prohibited or threatening behaviors without experiencing punishing consequences. Lastly, the third factor relates to the performability of the behavior. Specifically, this refers to observers' perceptions of their ability to perform a modeled behavior (i.e., self-efficacy).

Social cognitive theory in the context of health. Bandura has used the SCT as a lens to examine health promotion and illness prevention (Bandura, 2004). Systematic literature reviews and meta-analyses have demonstrated the applicability of SCT to health behavior (Olander et al., 2013; Williams & French, 2011). Social cognitive theory identifies a group of four fundamental determinants that influence health behavior: (1) knowledge of health-related risks and benefits of various health behaviors; (2) self-efficacy that refers to an individual's ability to exercise control over their health behavior; (3) outcome expectations concerning the anticipated benefits and

costs of health behavior; and (4) perceived facilitators of and barriers to the practice of health behavior (Bandura, 2004).

The first determinant of health behavior, knowledge of health-related risks and benefits, is a precondition for behavior change (Bandura, 2004). If humans lack knowledge regarding their susceptibility to health issues, they have little or no motivation to change their health-related behavior (Bandura 2004; Huck et al., 2019). Nevertheless, Bandura (2004) argues that further self-influences are essential for many people to adapt and maintain good health behavior; thus, the second determinant is beliefs of self-efficacy, which is pivotal for human motivation as well as action. Self-efficacy refers to one's beliefs concerning their ability to practice a certain behavior, such as exercise and physical activity (Bandura, 1986, 2004). Many studies demonstrated that self-efficacy is essential for various populations to enact certain health behaviors in many different health contexts, such as exercise and nutrition behavior among cancer patients (Stacey et al., 2015), safe sex practices among college students (Kanekar et al., 2015), and dietary behavior among obese children (Rolling & Hong, 2016).

The third determinant is outcome expectations regarding the anticipated benefits and costs for different health behaviors, for people have attitudes and beliefs about what consequences their actions would produce (Bandura, 2004). Consequences can take different forms such as the physical outcomes (e.g., pleasing or undesirable effects of the target behavior), the social outcomes (e.g., beliefs concerning approval or disapproval the target behavior might evoke in one's relationships with others), and the self-evaluative reactions or outcomes resulting from an individual's health status and behavior (e.g., self-satisfaction or self-dissatisfaction) (Bandura 2004; Huck et al., 2019). Research has also reported significant effects of outcome expectations on various health behaviors including preventive nutrition (Schwarzer & Renner,

2000), physical activity and nutrition behavior (Stacey et al., 2015), and vigorous physical activity among college students (Petosa, Suminski, & Hortz, 2003). The last determinant, perceived facilitators of and barriers to performing the target behavior, also exerts an influence on health-related behavior (Bandura, 2004). Barriers can especially be problematic, as they make it challenging to engage in health-related behavior (Bandura 2004). For example, such impediments as lack of access to exercise facilities, foul weather, and feeling tired and depressed might deter people from performing the health behavior (e.g., exercising) (Bandura 2004; Huck et al., 2019). As another example, stigma of help-seeking may act as a significant barrier in the context of mental health problems, whereas positive past experiences with help-seeking and perceived social support can facilitate help-seeking behavior (Henshaw & Freedman-Doan, 2009; O'Connor, Martin, Weeks, & Ong, 2014).

2.2.2 Stigma and Modified Labeling Theory

Erving Goffman argues that individuals need others who are sympathetic to their concerns, who may have experienced similar problems and stigma, and who share with them the feeling that they are human and normal notwithstanding their own self-doubt (Goffman, 1978). Seeking and receiving social support from sympathetic others can benefit individuals who are going through distressing situations, yet people often feel reluctant to engage in support seeking (Andalibi, Haimson, De Choudhury, & Forte, 2016; Nagai, 2015). Research suggests stigma associated with mental health problems as a significant factor that may negatively impact social support seeking (DeLoveh & Cattaneo, 2017; Jennings et al., 2020). Goffman's (1963) seminal essay on stigma has been a pioneer in this field (Fox, Earnshaw, Taverna, & Vogt, 2018; Link & Phelan, 2013). Goffman (1963) defined stigma as a socially discrediting attribute or mark that makes the carrier a tainted individual, leading to social rejection. Mental illness is often

stigmatized and concealed, which in turn may create a barrier to seeking support (Corrigan & Kosyluk, 2014). Considering the prevalence of mental health problems and damaging influence of stigma, research has extensively studied stigma of mental illness and help-seeking (Fox et al., 2018). Stigma of mental illness includes labeling, devaluing, stereotyping, exclusion, and discrimination of individuals with mental health issues to their detriment (Abdullah & Brown, 2011; Clement et al., 2015).

Following Goffman's (1963) work on stigma, Scheff (1966) developed a labeling theory of mental illness suggesting that labeling processes play an important role in the construction of stable mental disorders. Also, what leads to labeling is not only the symptoms of mental disorders but also certain social factors, such as the social characteristics of the people who do the labeling as well as the person with mental disorder and the social situation in which they engage with one another (Link & Phelan, 2013; Scheff, 1966). Then, once an individual is labeled, strong social forces transpire to give rise to a stable pattern of mental disorder (Link & Phelan, 2013; Scheff, 1966). Later on, however, Link and colleagues modified the labeling theory and developed a new one arguing that labeling through treatment contact coupled with stigma negatively impact people with mental disorders in many realms of life (e.g., harming their employment chances, social relationships, and support networks) and put them at a greater risk of recurrent or prolonged mental disorders (Link 1982, 1987; Link et al., 1989; Link & Phelan, 2013). According to the modified labeling theory, conceptions of mental illness formed as part of socialization lead people to develop expectations and beliefs as to whether most people will discriminate and reject a person with a mental disorder as an employee, significant other, friend, or neighbor as well as whether most people will devalue an individual with a mental disorder as less competent, smart, and reliable (Link & Phelan, 2013). These beliefs and expectations are

particularly relevant for an individual who develops a mental health issue, as the possibility of devaluation and rejection becomes personally relevant (Link & Phelan, 2013). If the person with mental illness believes and fears that they will be stigmatized and that discrimination and devaluation apply to oneself, it can have severe ramifications such as compromised quality of life, worsening symptoms, less social contact, treatment avoidance, and treatment discontinuation (Link & Phelan, 2013). Indeed, research demonstrated that people with mental health problems often fear being labeled, thus avoiding help-seeking (Mulfinger et al., 2019).

Different scholars propose different classifications of stigma, yet they often refer to same stigma concepts using different terms (Fox et al., 2018). For example, Corrigan and Kosyluk (2014) focus on four types: public stigma, self-stigma, label avoidance, and structural stigma. Public stigma refers to the process by which individuals in the general public support the stereotypes of mental disorder and behave in a discriminatory way against people with mental illnesses (Corrigan & Kosyluk, 2014). For instance, prejudiced employers might take discriminatory action against and decline to hire a person with mental disorder, if they believe that the people with mental disorders are dangerous (Corrigan & Kosyluk, 2014). The public stigma, in turn, impacts people's willingness to seek help (Henderson, Evans-Lacko, & Thornicroft, 2013). Self-stigma transpires when individuals with mental disorders internalize the stereotypes, prejudices, as well as discrimination against themselves (Corrigan & Kosyluk, 2014). In such cases, they are less likely to seek help (Clement et al., 2015). Label avoidance, the third type of stigma, occurs when individuals who need mental health related professional help do not seek or utilize such help to avoid being publicly labeled as crazy (Clement et al., 2015; Corrigan & Kosyluk, 2014). Lastly, structural stigma is studied within the field of sociology and refers to the dearth of appropriate mental health related services (Corrigan & Kosyluk, 2014).

Indeed, several empirical studies, systematic reviews, and meta-analyses found significant associations between various types of stigma and mental health related help-seeking intentions and behavior (Clement et al., 2015; Corrigan et al., 2016; Dardas et al., 2019; Mulfinger et al., 2019; Schnyder, Panczak, Groth, & Schultze-Lutter, 2017; Schomerus & Angermeyer, 2008; Vogel, Wade, & Haake, 2006).

2.3 Help-Seeking for Mental Health Problems

As outlined in the theoretical grounding of this research study, both personal and societal factors are at play when it comes to seeking help and support for mental health problems. Mental illness impacts one in four people across the world (Torous et al., 2019). Yet, more than 80% of those struggling with mental health problems worldwide lack access to affordable and quality mental health care while experiencing discrimination and stigma (World Health Organization, 2019b). And even among the people who have access to treatment, help-seeking is not common (Roskar et al., 2017). However, access to and seeking treatment as well as informal help such as social support is key to alleviating suffering (World Health Organization, 2019a).

Help-seeking is defined as the behavior of actively searching for information, advice, guidance, treatment, or social support in response to a psychologically distressing situation, experience, or problem (Hedge, Sianko, & McDonell, 2017; Rickwood et al., 2005). The process of help-seeking starts with the recognition of the mental health related issue as well as a need for support, and is followed by the identification and evaluation of accessible sources of support and the willingness as well as intention to seek help (Kenny et al., 2016; Rickwood et al., 2005; Xu et al., 2018). As a way of coping that usually entails social networks and interpersonal capabilities, help-seeking can be carried out either formally or informally (Hedge et al., 2017; Kenny et al., 2016). Formal help-seeking is defined as the behavior of searching for support from

professionals who possess the appropriate training in mental health-related services (e.g., counselors, psychiatrists, nurses, teachers, etc.), whereas informal help-seeking is defined as the behavior of searching for support from social networks, such as friends and family (Hedge et al., 2017; Kenny et al., 2016). Research in a broad variety of disciplines has shown that both informal and formal help-seeking are effective coping strategies that benefit the well-being of an individual (Ansara & Hindin, 2010; Hedge et al., 2017).

2.3.1 Correlates of Help-Seeking for Mental Health Problems

Help-seeking is crucial to access care and support and improve well-being, yet individuals oftentimes avoid, hold back, or delay seeking help for their psychological struggles (Xu et al., 2018). Research has found different factors that influence formal/ professional help-seeking behavior for mental health related issues in general population, such as attitudes towards and expected outcomes of help-seeking, emotional well-being and severity of the problem, perceived barriers such as stigma associated with mental disorders, perceived encouragement and support from other people to seek help, past experience with help-seeking, and sociodemographic characteristics such as gender and ethnicity (Ali et al., 2016; Clement et al., 2015; Henshaw & Freedman-Doan, 2009; Magaard, Seeralan, Schulz, & Brütt, 2017; Rodgers et al., 2017; Schnyder et al., 2017; Velasco, Santa Cruz, Billings, Jimenez, & Rowe, 2020; Xu et al., 2018). In a systematic review of qualitative and quantitative research, Clement et al. (2015) found that stigma negatively influences help-seeking, and Schnyder et al. (2017) found in their meta-analysis that individuals' own negative attitudes towards help-seeking had an association with less help-seeking. In another systematic review, Magaard et al. (2016) found that perceived severity of the mental health related problem appears to have an effect on help-seeking behavior such that increase in perceived severity and worsening emotional well-being may lead to higher

likelihood of seeking professional help. Furthermore, research has often shown that people struggling with mental health related issues tend to look for support from informal sources before seeking formal help (Meyer & Eggins, 2018). This can influence formal help seeking behavior in two different ways; help-seekers with high perceived social support might be less inclined to seek professional help and instead keep seeking and using informal help, while receiving informal help like social support can also encourage those to engage with formal help-seeking (Gulliver, Griffiths, & Christensen, 2012; Meyer & Eggins, 2018; Pattyn et al., 2014).

2.3.2 Formal Help-Seeking among College Students

As discussed previously, mental health related problems are prominent among young people, and college students represent a particularly vulnerable population. Numerous studies have revealed that the rate of formal help-seeking is very low among college students (Pedrelli et al., 2015). For example, in a large-scale cross-national study of mental illness among college students, the survey results revealed that only 16.4% of college students with mental disorders received treatment in the past 12 months before the research was conducted (Auerbach et al., 2016). Most importantly, despite of an increasing number of counseling centers at colleges, the majority of students who are found to be depressed and even suicidal are not seeking or engaging in formal treatment (Iarovici, 2014). This is concerning because the failure to seek treatment early on is associated with a more persistent nature of disorder as well as more frequent relapses (Hunt & Eisenberg, 2010). Additionally, untreated mental disorders may significantly impact aspects of people's lives, including alcohol and drug use, health, functioning in the labor market, productivity, success, and functioning in interpersonal relationships, for many years to come (Cuijpers et al., 2019; Hunt & Eisenberg, 2010). In fact, presence of mental health and substance use issues during college years relates to many negative life outcomes including but not limited

to dropping out of college, severe social impairment, unemployment, and obesity (Pedrelli et al., 2015).

Research has shown that the most prominent psychosocial correlates of college students' formal help-seeking behavior are attitudes and expected outcomes, perceived barriers, severity of the mental health problems and level of psychological well-being, perceived social support, and past experiences with help-seeking (Bohon, Cotter, Kravitz, Cello Jr., & Fernandez y Garcia, 2016; Czyz, Horwitz, Eisenberg, Kramer, & King, 2013; Jennings et al., 2015; Laidlaw et al., 2016; Li, Dorstyn, & Denson, 2014; O'Connor et al., 2014; Pumpuang, Seeherunwong, Vongsirimas, 2018; Vogel, Wester, Wei, & Boysen, 2005). Past research demonstrated that attitudes toward mental health related help-seeking and anticipated outcomes of that behavior explain the variance in help-seeking intentions among college students (Li et al., 2014; Vogel et al., 2005). Similarly, Pumpuang et al. (2018) and Bohon et al. (2016) also showed that attitudes toward seeking professional help for psychological problems significantly predicted students' intentions to actually seek such help. As for the barriers to help-seeking, research found public stigma and self-stigma to be associated with college students' help-seeking behavior for mental health difficulties (Jennings et al., 2015; Laidlaw et al., 2016; Seamark & Gabriel, 2018). In addition, several empirical studies on the link between severity of mental health-related problems or psychological distress and help-seeking intentions among college students found a negative relationship between those; in other words, the higher scores on symptoms or distress were associated with lower intentions to seek help (Buscemi et al., 2010; Kenny et al., 2016; Nagai, 2015; Zochil & Thorsteinsson, 2018). Last but not the least, research has also found positive past experiences with help-seeking and mental health services as well as perceived social support to

be associated with college students' formal help seeking behavior (Apolinário-Hagen et al., 2016; Gulliver, Griffiths, & Christensen, 2010; O'Connor et al., 2014; Velasco et al., 2020).

2.3.3 Informal Help-Seeking among College Students

Considering the importance of informal help in the formal help-seeking process (Meyer & Eggins, 2018) as well as its beneficial effects on the improvement of mental health related problems, it is surprising that informal help seeking has been studied less than professional help-seeking (Rodgers et al., 2017). That said, several studies have investigated the factors that may be at play when it comes to informal help seeking. For example, Griffiths, Crisp, Barney, and Reid (2011) found that perceived social support, including informational, emotional, and instrumental support, was an advantage that might lead people dealing with depression to prefer seeking informal help from friends and family, whereas stigma and the anticipation of a negative effect on relationships with friends or family members were disadvantages that may lead the sufferers to not prefer seeking informal help. Similarly, Pattyn et al. (2014) found higher levels of perceived public stigma and self-stigma to be associated with a perception of informal help seeking as a useless act, which they argued to be in line with previous studies that revealed an association between fear of devaluation and impaired informal help seeking behavior.

Research has revealed that young adults, including college students, tend to prefer informal help in the form of social support from friends and family, instead of formal help from professionals (Cho & Huang, 2017; DeLoveh & Cattaneo, 2017; Eisenberg et al., 2012; Goodwin et al., 2016; Kenny et al., 2016; McDermott et al., 2018; Wiljer et al., 2016). There are a number of factors that influence informal help-seeking among this vulnerable population. In a national survey of college students' mental health, Kenny et al. (2016) found that higher levels of depressive symptoms predicted less likelihood to seek informal help while also finding that

perceived social support facilitates informal help-seeking. Similarly, a study by Goodwin et al. (2016) revealed that informal help was more popular compared to formal help among college students and that those with lower emotional well-being had lower likelihood of seeking informal help. Studies have also demonstrated a relationship between perceived social support and informal help-seeking among college students and adolescents (Hedge et al., 2017; Heerde & Hemphill, 2018; Kenny et al., 2016; Sheffield, Fiorenza, & Sofronoff, 2004). In addition, outcome expectations related to help-seeking, worries concerning stigma of help-seeking and risk of rejection, and past experiences with help-seeking have been noted as influential factors in the context of informal help-seeking (DeLoveh & Cattaneo, 2017; Hedge et al., 2017; Seamark & Gabriel, 2018; Wiljer et al., 2016).

2.4 Social Support

As mentioned in the previous section, informal help can sometimes be as important as formal help thanks to its positive impact on mental health (Rodgers et al., 2017). Social support is a form of informal help that individuals with mental health problems can seek to receive from their families and friends (DeLoveh & Cattaneo, 2017). Social support is a concept that has been widely studied and suggested to have a crucial role in an individual's health and well-being (Cohen, 2004; Lee, Chung, & Park, 2018). It refers to the notion of network relationships and resources obtained from them (Cohen, 2004; Lee et al., 2018). In other words, supply of material resources as well as psychological resources by one's social network is an indication of social support that benefits a person's ability to handle stress and other problems in life (Cohen, 2004; Lee et al., 2018). Systematic research on the link between social support and health has been growing since the 1970s, and various theoretical models emerged from this body of work (Holt-Lunstad & Uchino, 2015). Two influential theoretical models of social support explain the

process by which social support influences health: the buffering model and the direct (main) effect model.

The buffering model proposes that social support buffers (i.e., protects) individuals from pathogenic effect of stressful life events, whereas the main effect model posits that social support benefits individuals regardless of whether they are experiencing stress (Cohen & Wills, 1985). In the context of the stress-buffering model, buffering takes place through one's interpretation of their situation and social support / coping resources (i.e., cognitive assessment process), which in turn buffers the link between stress and health outcomes (Cohen & Wills, 1985; Holt-Lunstad & Uchino, 2015). That is, in stressful situations, individuals who perceive that they have available and sufficient sources of support can feel less lonely and give improved emotional reactions to their stressful situations (Heerde & Hemphill, 2018). In addition, they can adopt or maintain healthy practices such as little or no alcohol use, quality sleep patterns, healthy diet, and exercise, which in turn may have an impact on health-related outcomes (Holt-Lunstad & Uchino, 2015). These outcomes include but are not limited to biological results such as blood pressure and weight, clinical disease endpoints like hypertension and obesity, and mental disorders.

The direct effect (i.e., main effect) model, on the other hand, posits that social support is beneficial in general, regardless of an individual's stress levels (Cohen & Wills, 1985). The process of the direct effect model involves promotion of self-worth, sense of connection, and control over life thanks to the assurance a person has in terms of being cared for as well as supported by others (Cohen & Wills, 1985; Heerde & Hemphill, 2018; Holt-Lunstad & Uchino, 2015). There is substantial empirical evidence for both of the models (Holt-Lunstad & Uchino, 2015). For instance, Steptoe, Wardle, Pollard, Canaan, and Davies (1996) demonstrated that persons with high levels of both stress and social support adopted more healthy behaviors such

as less alcohol use than did persons with high levels of stress but low levels of social support. As for the main effect model, evidence exists with regard to the direct relationship between perceived social support and good health behaviors such as more physical exercise, less alcohol use, and less smoking (Holt-Lunstad & Uchino, 2015; Steptoe et al., 1996; Stewart, Gabriele, & Fisher, 2012).

2.4.1 Conceptualizations, Types, and Sources of Social Support

Social support has been conceptualized in cognitive terms, as the perception that it would be accessible if necessary, and in behavioral terms, as its actual receipt (Reinhardt, Boerner, & Horowitz, 2006). Therefore, it has been distinguished with regard to whether support is perceived or received (Holt-Lunstad & Uchino, 2015). Perceived social support refers to one's cognitive evaluation of being connected to others in their social environment (Barrera, 1986). In other words, it characterizes the concept of social support as an individual's perceptions regarding the availability and sufficiency of support as well as satisfaction with received support (Haber, Cohen, Lucas, & Baltes, 2007). Received social support, on the other hand, represents behavioral descriptions of support (Barrera, 1986), which are actual supportive behaviors provided to an individual by their social networks (Haber et al., 2007).

Also known as objective and subjective social support, received and perceived social support are not necessarily closely related (Bender, van Osch, Sleegers, & Ye, 2019), and received social support does not mediate the effect of perceived social support on well-being (Reinhardt et al., 2006). Indeed, perceived and received support have been suggested to be two distinct constructs, as they have a moderate correlation (Haber et al., 2007; Holt-Lunstad & Uchino, 2015). In addition, research has consistently found perceived social support to be related to better health, whereas received social support has been found to have a rather complicated

relationship with health and well-being (Heaney & Viswanath, 2015). While some studies found a positive association between received social support and well-being, some others found it to be linked with negative impact on well-being (Uchino, 2009). Measures of perceived social support assess perceptions of reality that have amassed based on numerous interactions as well as events in the long run, whereas measures of received social support focus on rather recent and specific events and interactions that may not accurately represent one's general pattern of interactions with support providers (Ibarra-Rovillard & Kuiper, 2011). Therefore, researchers argue that measures of perceived social support have a stronger association with well-being than measures of received social support (Hobfoll, 2009; Ibarra-Rovillard & Kuiper, 2011). Indeed, a meta-analysis of empirical studies on the relation of received and perceived support to mental health found that perceived social support has a significantly stronger association with mental health than received social support (Prati & Pietrantoni, 2010).

Among all the support concepts, the most widely studied one has been perceived social support, since it is in line with the cognitive models of stress as well as coping processes and has been the only one consistently associated with health in the literature (Barrera, 1986; Haber et al., 2007; Reinhardt et al., 2006). As defined earlier, perceived social support refers to an individual's belief that help from members of their social network is available as well as sufficient (Hedge et al., 2017). It is suggested that a person's past experiences with social support might play a major role in that individual's perception of available social support (Ibarra-Rovillard & Kuiper, 2011). Research has shown that perceived support predicts physical as well as mental health behavior and outcomes better than all other social support constructs (Heaney & Viswanath, 2015; Holt-Lunstad & Uchino, 2015; Ibarra-Rovillard & Kuiper, 2011). In terms of physical health behaviors, studies have revealed a link between perceived social support and

better health practices such as healthier diet, lower alcohol use, adherence to routine health check-ups, lower emotional or binge eating, and more physical exercise (Conceição et al., 2020; Jackson, 2006; Mackey, Olson, Merwin, Wang, & Nadler, 2018; Stewart et al., 2012). As for mental health and help-seeking behavior, research has demonstrated an association between perceived social support and willingness to seek counseling, informal-help-seeking, symptom improvement, psychosocial outcomes, and lower risk for depression and anxiety (Apolinário-Hagen et al., 2016; Dour et al., 2014; Heerde & Hemphill, 2018; Hefner & Eisenberg, 2009; Kenny et al., 2016; Reid, Holt, Bowman, Espelage, & Green, 2016).

Perceived social support has been found particularly important for the mental health of young people and college students (Alsubaie, Stain, Webster, & Wadman, 2019; Bender et al., 2019; Heerde & Hemphill, 2018; Hefner & Eisenberg, 2009; Lee et al., 2018; Noret, Hunter, & Rasmussen, 2020; Reid et al., 2016; Rueger, Malecki, Pyun, Aycock, & Coyle, 2016). In a meta-analysis of studies on the relationship between social support, informal help-seeking, and psychosocial outcomes among adolescents, the researchers revealed that social support indeed plays a significant role in psychological well-being of adolescents (Heerde & Hemphill, 2018). In line with this finding, a study on 3737 adolescents found a significant relationship between perceived social support from friends and family and good mental health (Noret et al., 2020). Another meta-analysis also found robust support for the benefits of perceived social support in terms of protecting adolescents from depression (Rueger et al., 2016). Furthermore, a study on mental health among 1378 college students found an association between lower quality perceived social support and higher likelihood to experience mental health difficulties, such as a six times higher risk of depression compared to students who perceived higher quality social support (Hefner & Eisenberg, 2009). Similarly, another study on college students demonstrated

that perceived social support from romantic partners, friends, and family was a significant predictor of depression and quality of life in terms of physical and psychological health as well as social relationships (Alsubaie et al., 2019). Lee et al. (2018) have also found in their study of college students that perceived social support is a consistent predictor of mental health outcomes. The results of a study on previously bullied freshman college students similarly showed that perceptions of social support from family moderated the relationship between earlier bullying victimization and first year anxiety (Reid et al., 2016).

Types of social support. Social support is a multidimensional concept that includes various functional components such as informational, emotional, and instrumental support (Gariepy, Honkaniemi, & Quesnel-Vallee, 2016; House & Kahn, 1985). Informational support refers to provision of advice, guidance, or information and emotional support signifies provision of love and trust as well as expressions of caring and comfort, while instrumental support refers to supply of various resources such as money or time (Holt-Lunstad & Uchino, 2015; Malecki & Demaray, 2003). As demonstrated in factor analyses, social support is a higher order concept composed of the aforementioned functional support elements that are distinct lower order processes (Cutrona & Russell, 1990; Holt-Lunstad & Uchino, 2015). A number of studies examined these functional support elements in a variety of contexts such as physical and mental health problems, various types of life stressors, natural disasters, school and work environments, as well as business to consumer services and brand communities (Bernabé & Botia, 2016; Malecki & Demaray, 2003; Klyver, Honig, & Steffens, 2018; Platt, Lowe, Galea, Norris, Koenen, 2016; Xiao, Li, Qiao, Zhou, & Shen, 2017; Zhu, Sun, Chang, 2016). Research has found informational and emotional support to be positively associated with well-being while revealing that instrumental support is negatively related to well-being (Bender et al., 2019;

Reinhardt et al., 2006). This has been explained by the idea that emotional support might be comforting and make an individual feel loved, whereas instrumental support could be related to such negative feelings as dependence on others or feeling in debt to others (Reinhardt et al., 2006). In a systematic review and meta-analyses of 100 studies, researchers found that 75% of those studies reported a significant association between emotional social support and mental health, thus concluding that emotional support such as having access to someone to confide in may be the most effective type of social support (Gariepy et al., 2016). Informational support has also been studied and found beneficial particularly among cancer patients, disaster survivors, and people intending to change their eating or physical activity behavior (Guilaran, Terte, Kaniasty, & Stephens, 2018; McKinley & Wright, 2014; Robinson & Tian, 2009; Scarapicchia, Amireault, Faulkner, & Sabiston, 2017). Gariepy et al. (2016) argues that it could be easier to provide emotional and informational support, especially when the recipient is physically distant from the provider, whereas the necessity of physical presence might make receiving instrumental support harder. However, this review also indicated an indirect benefit of instrumental support on well-being. For instance, in case of a crisis or stressful life event, having a support provider who can help with chores might alleviate the recipient's stress and enhance well-being (Gariepy et al., 2016). Nevertheless, the majority of studies in social support literature measure global social support instead of investigating each of these functional support elements (Malecki & Demaray, 2003).

Sources of social support. Social support may also vary depending on the source of the support, such as spouses/significant others, peers/friends, family, relatives, teachers, and co-workers (Bender et al., 2019; Gariepy et al., 2016; Scarapicchia et al., 2017; Yuh & Choi, 2017). Empirical studies have consistently indicated family as a crucial source of social support

protecting individuals from mental health difficulties (Auerbach, Bigda-Peyton, Eberhart, Webb, & Ho, 2011; Rueger, Malecki, & Demaray, 2010; Rueger et al., 2016). From early childhood to adolescence, parents/family, teachers, and school classmates are particularly important sources of social support (Gariepy et al., 2016; Rueger et al., 2016). Research has indeed shown that perceived social support from family, teachers, and school classmates is related to healthy development as well as adaptive emotional functioning (e.g., lower levels of anxiety and depression) among adolescents (Auerbach et al., 2011; Rueger et al., 2010; Rueger et al., 2016). As for young adults and college students, several studies found that the influence of stress on emotional well-being hinges on the degree of perceived social support from family, friends, and romantic partners (Alsubaie et al., 2019; Awang, Kutty, & Ahmad, 2014; Glozah, 2013; Kugbey, 2015; Lee & Dik, 2017; Wörfel, Gusy, Lohmann, Töpritz, & Kleiber, 2016). Nevertheless, friends are a key source of social support and increasingly more important than family among this population, since the focus changes from family to peers as they try to individuate from family in this stage of life (Alsubaie et al., 2019; Kugbey, 2015). Among working adults, co-workers were found to be an important source of social support protecting from burnout and diminishing family-to-work conflict (Halbesleben, 2006; Van Daalen, Willemsen, & Sanders, 2006). Finally, spouse/partner and children are the sources of social support significantly associated with well-being among older adults (Gariepy et al., 2016; Okabayashi, Liang, Krause, Akiyama, & Sugisawa, 2004).

2.4.2 Social Support Seeking

Individuals tend to seek out significant others, family, friends, coworkers, or other close people to get support, comfort, advice, or any kind of help with their problems (Vélez et al., 2016). Seeking social support from close others when confronted with emotional hardships or

challenges in life is a quite common coping mechanism (Vélez et al., 2016). As a coping strategy in distressing situations, it not only aids the seeker in regulating their emotions but also enables to cognitively elaborate on and better adapt to challenging situations (Boros, Van Gorp, & Boiger, 2019). Therefore, it is considered to be a positive strategy for dealing with challenges and a crucial element in determining an individual's response to distressing situations (Xie & Xie, 2019).

Seeking social support is defined as "intentional communicative activity with the aim of eliciting supportive actions from others" (MacGeorge, Feng, & Burleson, 2011, p.330). Social support seeking behaviors can be verbal/nonverbal and direct/indirect (Buehler, Crowley, Peterson, & High, 2019). Directness refers to the explicitness of the support seeker's messages that can be verbal or nonverbal (Buehler et al., 2019). Talking about one's concerns or asking for help are examples of direct verbal social support seeking behaviors, whereas resting one's head on a support provider's shoulder or crying can illustrate direct nonverbal behaviors (Buehler et al., 2019). On the other hand, hinting about one's struggle or complaining are examples of indirect verbal behaviors, while fidgeting, sighing, or sulking can illustrate indirect nonverbal behaviors (Buehler et al., 2019). These behaviors determine, to some extent, if and in what way a support provider responds to a support seeker (Buehler et al., 2019). Direct support seeking strategies may be more helpful to support seekers (Buehler et al., 2019) because direct behaviors lead to more supportive responses, whereas indirect behaviors lead to more unsupportive responses (Williams & Mickelson, 2008).

Social support seeking can aid individuals in processing of their concerns and distress, which in turn may help maintain or improve one's quality of life as well as mental health (Hill, 2016). Indeed, numerous studies found a positive association between social support seeking and

successful problem solving as well as improved mental and physical health, while others demonstrated that support seeking in general is a protective factor against the negative influence of stressful situations on individuals (Daniels, Beesley, Wimalasiri, & Cheyne, 2013; Domhardt, Münzer, Fegert, & Goldbeck, 2015; Li et al., 2018; Luyckx, Klimstra, Duriez, Schwartz, & Vanhalst, 2012; Sabina & Banyard, 2015; Terreri & Glenwick, 2015).

Although seeking social support from others can benefit people who are going through hardships and distressing situations, people are oftentimes reluctant to attempt support seeking (Andalibi et al., 2016; Nagai, 2015). The act of social support seeking depends on several factors, such as how individuals perceive their situation and the severity of the problem, their interpersonal relationships and availability of support, stigma attached to their concern, and gender (Andalibi et al., 2016; De Kimpe et al., 2020; Li et al., 2018). When individuals believe that their problem is serious, their need to be helped increases, and therefore, benefits of support seeking outweigh the costs (De Kimpe et al., 2020). Whether a person perceives that trusted sympathetic others are available to provide support is also important antecedent of support seeking (De Kimpe et al., 2020). When individuals seek social support, they may also think they look weak or inadequate by admitting that they need help with their problems and feel ashamed in doing so, particularly if their problem is a stigmatized one (Andalibi et al., 2016). In addition, in many cultures women and men are socialized in different ways such that men believe that they should handle their problems by themselves, whereas women can feel free to talk about their concerns, share their emotions, and seek support (Andalibi et al., 2016).

2.5 Online Social Support

Ongoing technological advancements and increasing access to the Internet as well as use of smartphones in the last two decades have brought along considerable changes in the way

social support is sought and provided (Holt-Lunstad & Uchino, 2015; Wright, 2016a, 2016b). This is mostly because of the distinct features and affordances of various online platforms that enable seeking and providing social support (Rains & Wright, 2016; Rains & Young, 2009). Several types of online communication networks that allow social support exchange include e-mail, chat rooms, instant messaging, online communities, blogs, massively multiplayer online games, social networking sites and mobile social media applications (Rains & Wright, 2016). Before delving into social support in the context of these online platforms, it might be useful to review the features and affordances of online communication that are distinct from the traditional, face to face communication.

Features and affordances of online communication networks. Online communication has been increasingly important in recent decades (Green, Wilhelmsen, Wilmots, Dodd, & Quinn, 2016). It is different from the traditional, face-to-face communication with regard to several aspects such as reduced cues, accessibility, interactivity and interaction control, and anonymity or identifiability (Fox & McEwan, 2020; Green et al., 2016; Rains & Wright, 2016; Rains & Young, 2009: Yang, 2020). With such affordances, online platforms provide an environment with unique opportunities for users to seek, give, as well as receive different types of social support (Meng, Martinez, Holmstrom, Chung, & Cox, 2017). An important attribute of online communication is reduced cues, which allows people to communicate without the necessity of attending to contextual, visual, or auditory cues such as facial expression and eye contact (Green et al., 2016). This attribute is contrary to communication that takes place face-to-face because one does not need to seem interested, manage how they look, or converse in alternating turns (Green et al., 2016). Online communication differs from its face-to-face counterpart in terms of accessibility as well, for it grants the users the capability of interacting

with others regardless of structural constraints, place, time, or other limitations (Fox & McEwan, 2020; Rains & Young, 2009). Thanks to continually functioning sites irrespective of whether any individual user takes part, online channels are constantly available and accessible (Fox & McEwan, 2020). This, in turn, enables users to provide, seek, and receive support from other users anytime anywhere, which is helpful especially when one cannot readily access in person social support (Chung, 2013; Gilmour, Machin, Brownlow, & Jeffries, 2020; Tang, Chen, Yang, Chung, & Lee, 2016).

As another important feature, interaction control is closely related to reduced cues and accessibility. Because interactions that take place in online platforms are usually text-based, they allow reduced nonverbal social cues as well as both synchronous and asynchronous exchanges thanks to accessibility at any time and place (Rains & Wright, 2016). Asynchronous exchanges enable effective management of what, how, and when to communicate, while reduced cues make it more comfortable to share even embarrassing or stigmatizing issues, which in turn give individuals greater control over their online interactions (Rains & Young, 2009). In addition, disclosing information in synchronous chats as well as in user posts, comments, and messages that enable either synchronous or asynchronous interactions and conversation control can benefit users through increased social capital and support (Caers et al., 2013).These technologies also enable social interaction through multiple ways such as system-generated and user-generated content; users can send and receive images, videos, and text-based messages while also communicating through audio and video channels (Fox & McEwan, 2020). Thanks to this affordance in online social networking, members who use interactivity features perceive higher informational and emotional support (Chung, 2013).

Last but not the least, online communication comes with differing levels of identifiability or anonymity (Chen, Sun, Wu, & Song, 2019). Identifiability or anonymity refers to the extent to which an online communication channel or platform allows users to keep their real identities, names, or other personal information hidden or private (Fox & McEwan, 2020). Earlier forms of online communication in computer-mediated environments such as online communities and chatrooms were perceived to be advantageous with regard to the affordance of increased anonymity (Best, Manktelow, & Taylor, 2014; Wright, 2016b; Yang 2020). However, today's heavily mobile environment laden with plethora of social media technologies and applications makes absolute anonymity almost impossible (Chen et al., 2019; Fox & McEwan, 2020). Even if users try to be anonymous by concealing their real names or identities on some platforms that allow it, they may still give cues to who they are through their network members, likes or dislikes, profile information, as well as geolocated content (Fox & McEwan, 2020). Therefore, many users attempt to manage their identity in a strategic way via various techniques of information control (Zhang, 2017). Goffman (1963) explains this behavior in his stigma management framework. Because sharing negative emotions and events might make one less desirable, people tend to avoid sharing those events to outsiders, whereas they share to individuals who give them social support (Goffman, 1963). Due to their masspersonal nature (i.e., use of mass communication channels for interpersonal messages), some of these media also make social interactions visible to a wide audience, and this may or may not line up with the imagined audience whom members anticipate when sharing (Fox & McEwan, 2020). This may lead users to try to self-present in a way that fits well with social norms or maximizes other people's view of them (Zhang, 2017). Although various online networks and social media platforms provide control of privacy settings to individual users so that they can decide who can

see their posts, a message can still be distributed to a wider audience than one intended through reposts and shares (Fox & McEwan, 2020). Thus, despite feeling the need to confide in others when confronted with mental health problems, individuals tend to carefully construct their support seeking posts on online networks to reduce potential risks and strategically manage their image (Zhang, 2017).

Recent research investigating unique contributions of online social support has found various benefits and drawbacks of different online networks relative to face-to-face settings (Holt-Lunstad & Uchino, 2015). The next two sections will review social support in the context of various types of online platforms.

2.5.1 Social Support in Online Communities/Support Groups

Internet based technologies enabling text-based interaction between individuals as well as among groups facilitate seeking help, accessing support providers, and exchanging social support; therefore, scholars have suggested those as specifically valuable technologies for seeking and receiving social support (Rains & Wright, 2016). Some of the early forms of online social support communities included interactive and interpersonal mediums such as bulletin boards, chatrooms, emails (Wright, 2002), and mailing lists or listservs where group members talk to each other concerning a specific health issue (White & Dorman, 2001). Those virtual support communities were formed in computer-mediated contexts and defined as groups of individuals who engage in communication about their common problems through information technology (Wright, 2002). Research has shown that online communities are important sources of support from weak ties particularly for people dealing with health issues (Rising, Bol, Burke-Garcia, Rains, & Wright, 2017). Weak ties are composed of individuals who are not closely related yet exchange social support with one another (Wright & Rains, 2013). The main logic

behind those communities is that individuals who deal with a shared concern might be able to understand and support each other better than their strong ties such as family and friends can (Rains & Young, 2009; Wright & Rains, 2013). In other words, those participating in support groups are weak ties, which means they might be well-positioned to provide empathy, support, and advice to one another (Rains, Peterson, & Wright, 2015). Therefore, online support networks are thought to not only extend but also in some instances replace traditional sources of support by overcoming some of their hindrances; moreover, online support has been argued to be particularly alluring for people with limited access to offline social support (Rains & Wright, 2016).

Although the virtual support communities are rooted in the similar fundamental tenets as face-to-face support communities, they also leverage the unique aspects of computer-mediated communication such as reduced social cues, greater accessibility, and increased ability to control interactions (Rains & Young, 2009). These features present both advantages and disadvantages for social support processes and outcomes (White & Dorman, 2001; Wright, 2002). Thanks to reduced social cues including the ability to be invisible to others, community members may feel more comfortable talking about their stigmatized conditions (Rains & Young, 2009). Yet, this may also lead to impersonal communication, difficulty in communicating emotional support, or misinterpretation of messages (White & Dorman, 2001; Wright, 2002). Online support communities are not limited by time or geography, which in turn renders accessibility possible anytime anywhere (Rains & Young, 2009; Wright, 2016b). Such an advantage enables individuals with hearing or speech difficulties, mobility issues, or caregiving responsibilities to engage with ease (White & Dorman, 2001). In addition, members can have more control in terms of when and how they contribute to group discussions, as interaction can be asynchronous (Rains

& Young, 2009). However, this can also result in delayed, slower feedback (Wright, 2002, 2016b). In the context of emails, chat applications, instant messaging, private messages, and discussion forums, members can also benefit from increased anonymity (Rains & Young, 2009). This feature allows members to talk about sensitive or embarrassing topics without revealing their identity (Wright, 2002), which may increase the likelihood for self-disclosure (White & Dorman, 2001).

Individuals with stigmatizing illnesses or sufferers of sexual abuse may feel more comfortable to discuss their problems in online support communities (White & Dorman, 2001). Research has indeed shown that people with stigmatized health conditions such as depression prefer weak-tie support in online support communities because those weak ties tend to be less judgmental than strong ties such as friends and family members (Wright & Rains, 2013). Moreover, certain characteristics – sociodemographic characteristics such as race, gender, age, and income; various aspects of physical appearance such as weight and disability; or vocal traits and social skills – can also be kept private in computer-mediated environments (White & Dorman, 2001). However, anonymity can also lead to hostile communication (Wright, 2002, 2016b), as it enables less inhibited members to harass or deceive others in the community (White & Dorman, 2001).

Engagement with online social support has grown in popularity since the late 1990s when the early forms of online support communities emerged, yet there has been a particular rise in the last decade due to the growth of social media technologies and the prevailing use of smartphones to access the Internet as well as the social networking sites and mobile applications (Wright, 2016b). Social networking sites (SNSs) have increasingly shifted how individuals reach out to and engage with their personal relationships (Rozzell et al., 2014). Those platforms enable

people to communicate not only with already existing offline connections but also with latent and new connections formed online at low costs, traverse those networks with ease, and seek resources from a broad audience, thus rendering exchange of social support among both strong and weak ties possible (Rozzell et al., 2014). In the next section, social support will be reviewed in the context of those recent technologies and trends.

2.5.2 Social Support on Social Networking Sites and Mobile Applications

Social networking sites (SNSs) and mobile applications are a rapidly changing phenomenon and one of many social media tools used for social support exchange in today's digitally saturated world (Carr & Hayes, 2015; Meng et al., 2017). SNSs are defined as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system" (boyd & Ellison, 2007, p. 211). Initially, scholars stated that the aspect that differentiates SNSs from other types of computer-mediated communication is not the ability to meet strangers but the articulation and exhibition of people's social networks (boyd & Ellison, 2007). They further argued that while this feature may enable formation of connections with latent ties such as friends' friends, this is usually not the main goal; on most of the SNSs, people tend to communicate with those who are already within their social network (boyd & Ellison, 2007). However, other scholars have found that people also use SNSs with the aim of expanding their networks (Grasmuck, Martin, & Zhao, 2009)**.** Definitions of SNSs have usually been derived from technologies that are popular at the present time as well as from dominant user practices (Fox & McEwan, 2020). Because fast evolving technologies like social media are constantly

moving targets, it becomes a challenge to determine a consistent and valid definition (Fox & McEwan, 2020).

Carr and Hayes (2015) attempted to provide a definition of social media that is precise and comprehensive enough to include the variations of these fast-evolving technologies. Although the authors critiqued affordance-based definitions of social media, their conceptualization is founded on affordances such as accessibility, synchronous and asynchronous exchanges enabled by interaction control, as well as selective self-presentation thanks to editability (Fox & McEwan, 2020). According to Carr and Hayes (2015, p. 50), "social media are Internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others". In a more technical version of this definition, the authors also refer to social media as channels of masspersonal communication (Carr & Hayes, 2015), implying that these technologies render sending personalized messages to a broad audience possible (Fox & McEwan, 2020).

Users of these platforms can link to other members, which in turn produces a traceable network of connections that can be leveraged for seeking social support (Fox & McEwan, 2020). SNSs like Facebook allow a broad spectrum of connections, which range from individuals who already know each other in the offline world to strangers who meet through diverse SNS features such as fan pages, interest-based groups / profile pages, friend networks, social games, apps, and photos (Ellison, Steinfield, & Lampe, 2011). This network association allows users to identify others with whom they have common friends or interests, generating networks of strong as well as latent and weak ties (Fox & McEwan, 2020). SNSs enable users to broadcast requests for social support, thereby being used to interact and exchange social support with both strong ties,

such as close friends and family, associated with bonding social capital and weak ties, such as friends of friends or people with shared interests or problems, associated with bridging social capital (Ellison et al., 2011; Fox & McEwan, 2020). Bonding social capital refers to potential benefits from an individual's close personal relationships such as material help or emotional support, whereas bridging social capital describes benefits received from casual connections in an individual's larger social circles such as information or shared interest or problem not possessed by one's strong ties (Ellison et al., 2011). Being able to connect with a wide spectrum of audience associated with either bonding or bridging social capital on SNSs, such as Facebook, enable seeking, providing, and receiving social support through a users' Friend network; for example, a user can post a status update or broadcast a request on an interest-based group page to share their concern about a problem and inform their larger network, which may lead to supportive comments or send a private message targeted at one or a few friends (Ellison et al., 2011).

Over the past decade, use of social networking sites and mobile applications has increased at an impressive speed (Meng et al., 2017). According to a recent Pew Research Center survey, Facebook is still one of the most extensively used SNSs in the United States: Approximately 69% of adults report that they ever use the site (Pew Research Center, 2019). The survey results also showed that Instagram and Snapchat are particularly popular among people ages 18 to 24: 75% say they ever use Instagram, while 73% say they ever use Snapchat. Among this group, 76% also reported ever using Facebook while 44% reported ever using Twitter. Similarly, a study exploring use of social media among college students found that they spend the longest time in a day on Instagram, which is followed by Snapchat, Facebook, and Twitter (Alhabash & Ma, 2017). In this study, college students also reported using Instagram and

Snapchat with the highest intensity, and researchers interpreted this finding as college students having more favorable cognitive as well as affective attitudes toward these two platforms. In addition, the highest SNS adoption rate is among young adults ages 18 to 29 (90%), while the adoption rate is exponentially increasing among other age groups as well (e.g., older adults and teenagers) (Alhabash & Ma, 2017). The Pew Research Center's survey results also demonstrated that the majority of all Facebook, Twitter, Instagram, and Snapchat users engage with these platforms on a daily basis (Pew Research Center, 2019). As the number of people using these platforms increases, their importance as a venue for social support also increases (Meng et al., 2017), thanks to the affordances explained previously. Meng et al. (2017) indeed showed in their narrative review that research on social support and SNSs has accelerated from 2004 to 2015. The researchers found that Facebook has been the most widely studied SNS in the realm of social support, followed by Twitter. However, Instagram and Snapchat, albeit their increasing popularity, have not been studied as widely in the social support literature (Meng et al., 2017).

Social support on Facebook. With 2.7 billion users across the world, Facebook is by far the most popular SNS (Clement, 2020c). The platform, founded in 2004, allows sharing and posting user-generated content (e.g., status updates, photos), connecting with friends, acquaintances, colleagues, and family members (Alhabash & Ma, 2017) and maintaining offline social relationships, as well as forming new connections with friends of friends or other users in various interest groups one can join (Vitak & Ellison, 2013). In other words, the site enables a broad spectrum of connections, ranging from existing offline social relationships to strangers who meet via the site's features such as interest groups, social games and applications, and fan pages (Ellison et al., 2011). That said, there is usually an extensive overlap between individuals' offline connections and Facebook connections (Blight, Jagiello, & Ruppel, 2015). Once an

individual creates a Facebook profile, the new user can search for other users to add to their list of connections, disclose personal information, interact and exchange information with other users, share/post multimedia messages, play games, and comment on other users' posts (Jiang, Naqvi, & Abbas Naqvi, 2020). In addition, Facebook users' home page, also known as News Feed, regularly informs them about their connections' status updates, photos, and videos as well as their app activity and likes from people, interest pages, and groups that they follow on the platform (Facebook, 2021).

As a distinct channel for seeking as well as receiving social support, Facebook has been the most widely studied SNS in the social support literature (Blight et al., 2015; Meng et al., 2017). The platform's affordances facilitate providing and seeking informational as well as emotional support through the user's Friend network (Ellison et al., 2011). For example, one can post a status update complaining about a health issue or an emotional challenge, which informs the user's social network and may lead to advice or supportive responses (Ellison et al., 2011). Therefore, numerous studies have investigated social support on Facebook (Blight et al., 2015; Gilmour et al., 2020; Manago et al., 2012; Nabi et al., 2013; Oh, Lauckner, Boehmer, Fewins-Bliss, & Li, 2013; Razzell et al., 2014; Wright et al., 2013; Zhang, 2017).

Facebook was found to have significantly higher levels of support effectiveness than Twitter in a multi-method study using a US national survey (Hayes, Carr, & Wohn, 2016). In a cross-sectional study, Manago et al. (2012) found that larger friend networks in Facebook predicted higher levels of Facebook based perceived social support as well as life satisfaction. Similarly, another study demonstrated a positive relationship between number of Facebook friends and Facebook based perceived social support, which in turn predicted lower levels of stress and greater well-being (Nabi et al., 2013). Wright (2012) also found Facebook-based

perceived emotional support to be predictive of lower levels of perceived stress, while another study by Wright et al. (2013) revealed a negative relationship between satisfaction from Facebook-based social support and depression. A study on health-related social support on Facebook found that dealing with health-related problems is positively associated with seeking health-related support on the platform and that the most common type of social support sought was emotional support (Oh et al., 2013). Similarly, in their qualitative analysis of the message content in 10 diabetes focused Facebook groups, Greene, Choudry, Kilabuk, and Shrank (2011) found that group members use Facebook to obtain emotional support. In addition, Indian and Grieve (2014) found that Facebook based social support significantly contributed to the well-being of platform users with high social anxiety. In the same vein, opening up and seeking support on Facebook during stressful times was found to be positively related to receiving social support on the site, which in turn resulted in lower levels of depressive symptoms, higher levels of perceived social support, and increased life satisfaction (Zhang, 2017). Indeed, a recent systematic review showed that Facebook based support decreased symptoms of loneliness, anxiety, and depression, and improved well-being (Gilmour et al., 2020). As for sources and types of social support, participants in a mixed-method study reported receiving emotional and informational support more from their close others (68.03%) than their acquaintances (31.97%) on Facebook (Blight et al., 2015). However, another study revealed that participants perceived equal levels of Facebook based social support from acquaintances and close others (Razzell, et al., 2014). Apart from their findings related to types and sources of social support, Blight et al. (2015) also demonstrated a positive relationship between perceived supportiveness of the comments the study participants received in response to their support seeking Facebook status updates and perceived offline social support (Blight et al., 2015). Similarly, Indian and Grieve

(2014) found that participants with higher levels of perceived offline social support had higher levels of perceived online (Facebook-based) social support.

Social support on Twitter. Twitter, founded in 2006, is an SNS that revolves around microblogging (Alhabash & Ma, 2017), and has 330 million active users worldwide (Clement, 2019). The site allows users to interact through 280-character (previously 140) tweets (i.e., text posts) (Budenz et al. 2020) and to converse using hashtags, mentions, and replies (Alhabash & Ma, 2017). Hashtags are phrases or words preceded by a # sign, and commonly employed in tweets to associate with a certain topic, thus enabling specific dialogues on specific topics (Lachmar, Wittenborn, Bogen, & McCauley, 2017). Twitter facilitates connecting and communicating not only with friends, family, and acquaintances but also with strangers anywhere around the world (Gan & Jenkins, 2015). The platform provides an environment where users can communicate freely via tweets and hashtags to express and share what they feel, experience, and see in real time (Gan & Jenkins, 2015). This affordance made the site a central hub of both breaking news on a wide array of topics and updates on what one's connections are thinking (Gan & Jenkins, 2015). Indeed, Twitter users tweet about their daily thoughts and experiences real time, with topics involving status updates being a common occurrence (Lachmar et al., 2017).

According to the narrative review by Meng et al. (2017), Twitter is the second most studied SNS in the social support literature. Several studies looked into Twitter based social support (Attai et al., 2015; Cole et al., 2019; Hayes et al., 2016; Hosterman, Johnson, Stouffer, & Herring, 2018). For instance, a study surveyed the participants of a breast cancer support community on Twitter and found that 67% of the patients who reported struggling with high anxiety reported that they had low or no anxiety subsequent to their participation in the Twitter

community (Attai et al., 2015). Similarly, an analysis of pro-eating disorder Twitter profiles suggested that expressing one's disordered eating habits via tweets and interactions with similar other profiles / followers facilitates exchange of social support (Arseniev-Koehler, Lee, McCormick, & Moreno, 2016). Another study investigated social support in the context of "me too" movement (i.e., the movement aimed at empowering survivors of sexual assault and harassment) by analyzing the use of #metoo hashtag on Twitter, and found that the messages that contained informational support were the most commonly tweeted content (Hosterman et al., 2018). In addition, a thematic analysis of Twitter conversation among individuals dealing with mental illness revealed common content related to the influence of diagnosis on one's identity and support provision (Shepherd, Sanders, Doyle, & Shaw, 2015). Similarly, another Twitter content analysis focusing on the public discourse around the hashtag #MyDepressionLooksLike suggested that these conversations can increase social support for participants (Lachmar et al., 2017). Indeed, a longitudinal study of 308 adults showed that for the ones with lower perceived offline social support, Twitter use significantly predicted reduced depressive symptoms (Cole et al., 2019). However, in a multi-method study using a US national survey, Twitter was found to have significantly lower levels of support effectiveness than Facebook (Hayes et al., 2016). In the same study, focus group participants reported that although it was ok to seek social support on Twitter, it depended on the goal behind one's use of the platform and who your followers were. Many in this study reported engaging with the site for professional networking. In another study using a survey of 305 college students, Twitter users reported deriving highest bridging social capital, which was followed by Instagram and Facebook users (Phua, Jin, & Kim, 2017). This may be due to Twitter allowing the formation of a diverse network of weak ties, which in turn facilitates diffusion of new information, experiences, and thoughts through tweets, retweets,

as well as other rebroadcast posts (Phua et al., 2017). While Twitter-based support seeking may indeed depend on one's goal behind using the platform (e.g., professional networking, self-expression, social interaction) (Alhabash & Ma, 2017; Hayes et al., 2016), the ability to broadcast messages to a diverse network of weak ties also may encourage some to seek social support (Rife, Kerns, & Updegraff, 2016).

Social support on Instagram. Instagram, with over 1 billion users worldwide, is a photo and video sharing mobile application and social networking service that allows users to take pictures, apply a selection of filters to them, and share them on the platform (Alhabash & Ma, 2017; Clement, 2020b). It facilitates development of diverse networks by enabling users to share images and videos with other users who follow their account, like and comment on each other's posts, tag each other on posts, and interact through private messaging (Paige et al., 2017). Users can also accompany their images and videos by up to 30 hashtags as well as a short text (Bogolyubova, Upravitelev, Churilova, & Ledovaya, 2018) and "geo-tag" a photo they share on Instagram to inform other users about the date and location of their posts (Paige et al., 2017). Instagram users capture as well as share certain aspects of their life, community, and environment with their connections (Paige et al., 2017). They use the platform primarily for forming as well as maintaining social interactions with others via a brief scan of user-generated content (Paige et al., 2017). On Instagram, people tend to interact with weak ties they do not know in their offline world, yet to a lesser extent than Twitter (Phua et al., 2017). Indeed, Instagram users reported the second highest bridging social capital after Twitter (Phua et al., 2017). However, research has found that young people are also connected to and regularly communicate with their close friends on Instagram (Hayes et al., 2016).

Instagram differs from earlier SNSs, such as Facebook and Twitter, such that the platform focuses exclusively on video and image sharing instead of textual content (Bogolyubova et al., 2018). Research suggests that image-based messages offer social presence, an intimate as well as real interpersonal experience, and immediacy (Pittman & Reich, 2016). Images are suggested to be more powerful media than texts because they work better for communicating emotions and internal states that might make straight-forward verbalization difficult (Bogolyubova et al., 2018). Photo-based platforms, such as Instagram, afford visual signifiers that can be used to express one's psychological distress or other stigmatized problems and seek nonverbal social support, when verbalization and open discussion of such issues might be discouraged (Bogolyubova et al., 2018). Instagram is a platform that has recently become popular, so there are not as many studies on Instagram-based social support as there are on Facebook-based social support (Alhabash & Ma, 2017; Hayes et al., 2016). Nevertheless, research on Instagram-based support has been burgeoning rapidly (Bogolyubova et al., 2018). The results of Instagram-based social support studies showed mixed findings (Carlyle, Guidry, Williams, Tabaac, & Perrin, 2018; Eagle, 2019; Hayes et al., 2016; Pornsakulvanich, 2017; Warner, Ellington, Kirchhoff, & Cloyes, 2018). In a focus group, participants reported that they would not use Instagram for emotional support, as they believe that the social norm of the app is of positivity (Hayes et al., 2016). However, the same participants also noted that they would still seek social support in the form of feedback from their network to aid in self-evaluation. In fact, Sheldon and Bryant (2016) found that use of Instagram revolves around documentation of one's own life events, surveillance, and knowledge gathering regarding other users, while Alhabash and Ma (2017) also found that self-documentation, self-expression, and social interaction were among the motivations for using the platform. On the other hand, a study on SNS-based social

support showed that the amount of Instagram use predicts the frequency of using the platform for seeking emotional and informational support (Pornsakulvanich, 2017). A content analysis of Instagram posts with #youngadultcancer hashtag demonstrated that young adults battling with cancer discuss their concerns on the app and receive social support in the form of likes and positive comments (Warner et al., 2018). Similarly, pregnant women who suffer from severe pregnancy sickness use Instagram to share their painful experiences and exchange social support (Eagle, 2019). Researchers have also examined suicide-themed posts on Instagram, and results revealed that posts discussing suicide ideation elicited higher social support (i.e., supportive comments) than posts that did not (Carlyle et al., 2018).

Social support on Snapchat. Snapchat is another mobile application and social networking service, which allows users to share time-sensitive text, video, and picture messages that are available only for a short amount of time and expire upon viewing (Alhabash & Ma, 2017). In other words, once a certain amount of time passes, the message disappears and becomes permanently inaccessible to the user who received it (Vaterlaus, Barnett, Roche, & Young, 2016). The platform was launched in 2011 (Vaterlaus et al., 2016), and has 218 million active users around the world (Clement, 2020a). In recent years, Snapchat has garnered increasing number of users thanks to its affordances, such as enabling users to post text, video, and image-based messages that vanish after 24 hours and to edit videos and images using various filters (Alhabash & Ma, 2017). Specific to the app – which Instagram has also adopted lately – is the Stories function that lets users post video or picture snaps, gathers together those snaps posted within the last one day, and allows users to choose who can view their content by giving the options of posting one's snaps to their public stories, sharing with their followers, or sending to select users privately (similar to direct, private messaging in Twitter and Facebook) (Alhabash

& Ma, 2017). Therefore, the app provides variety of opportunities for self-expression while also allowing maintenance of privacy (Alhabash & Ma, 2017).

Similar to Instagram, Snapchat is also an app that has only recently gained popularity; therefore, social support research studying the app is very limited (Alhabash & Ma, 2017; Hayes et al., 2016). While the personal nature of the app yields higher bonding social capital that may facilitate seeking and receiving social support (Hayes et al., 2016; Phua et al., 2017), studies investigating uses of the app reveal mixed results in terms of the potential for social support (Alhabash & Ma, 2017; Bayer, Ellison, Schoenebeck, & Falk, 2016; Hayes et al., 2016; Phua et al., 2017; Vaterlaus et al., 2016). Research has showed that the top two motivations for using Snapchat was entertainment and convenience (Alhabash & Ma, 2017). In addition, Bayer et al. (2016) found that interactions on Snapchat were related to lower social support than Facebook and were perceived as rather enjoyable and fun. Participants in another study also reported that they mainly use Snapchat to communicate personal, funny, or emotional content (Piwek & Joinson, 2016). Similar to Instagram, Snapchat also enables users to display their emotions and share their experiences rather vividly, thanks to visual affordances (Waddell, 2016). In a qualitative study, Snapchat users reported that imaged-based messages afforded nonverbal cues that facilitated self-expression and increased the ability to understand emotions of other users (Waddell, 2016). Snapchat has a rather private nature compared to other social networking platforms because users tend to share their snaps with select other users whom they already know in real life and are close (Phua et al., 2017). This allows them to escape from the masspersonal nature of other platforms (Vaterlaus et al., 2016) and makes their Snapchat relationships as more typical of family members, significant others, and close friends (Phua et al., 2017). Hayes et al. (2016) conducted a multi-method study on how social support differs

across different SNSs. In this study, focus group participants emphasized that on Snapchat they have no random followers and that their close and small network consists of fewer total connections than other social media platforms. Additionally, snaps can be directly sent to a small group of friends, facilitating targeted social support seeking (Hayes, et al., 2016) and encouraging openness (Hollenbaugh, 2019). Phua et al. (2017) also assert that Snapchat users are likely to engage with other users whom they trust to share their problems, seek help, and ask for advice. In an online survey of 297 college students, Phua et al. (2017) found that Snapchat users gained highest level of bonding social capital, which was followed by Facebook, Instagram, and Twitter. As bonding social capital consists of close relationships where individuals share strong personal connections and exchange social support, this could impact the diversity of motivations sought from Snapchat (Piwek & Joinson, 2016). Indeed, scholars argue that while Instagram and Snapchat have not been examined as support seeking channels like Facebook and Twitter, they have that potential thanks to their affordances facilitating self-disclosure and expression in various forms as well as thanks to their popularity among college students (Liu & Wei, 2018).

Social support on TikTok. TikTok is a new social media platform/app that was created in 2016 and focuses on short video-sharing (Masciantonio, Bourguignon, Bouchat, Balty, & Rimé, 2021). The app was launched in China and quickly turned to be a global success, with over 2 billion worldwide users as of 2020 (Scherr & Wang, 2021). Similar to Instagram and Twitter, TikTok allows users to follow other users' content without gaining their approval, and self-documentation is the most significant motivation behind its use (Masciantonio et al., 2021). Considering the app has recently been found, it is no surprise that research examining TikTok is scant, and no research that investigates social support on the app has been located. Existing research on TikTok focuses on user motivations and very recently on spreading COVID-19

related information on the app as well as the influence of its use on well-being during the pandemic (Basch, Hillyer, & Jaime, 2020; Li, Guan, Hammond, & Berrey, 2021; Masciantonio et al., 2021; Omar & Dequan, 2020; Scherr & Wang, 2021). For example, Scherr and Wang (2021) found that trendiness, novelty, escapist addiction, and self-presentation were the most common gratifications for TikTok use. In addition, a study examining the relationship between the use of various social media platforms/apps and well-being during the COVID-19 pandemic has found no association between TikTok use and well-being (Masciantonio et al., 2021). However, according to a recent survey by the Pew Research Center, 48% of people ages 18 to 29 reported ever using TikTok, which makes it the third most popular platform/app after Instagram and Snapchat among this age group (Pew Research Center 2021a, 2021b). Therefore, it may prove useful to study young adults' social support seeking behavior on this increasingly popular app.

2.6 COVID-19 Pandemic and Mental Health

COVID-19, the novel coronavirus disease, emerged in China in December 2019 (Marroquín et al., 2020) and was declared a global pandemic by the World Health Organization on March 11, 2020 (Ellis et al., 2020). The threat of this new type of coronavirus has been revealed by its high transmission and mortality rates (Lin, Broström, Griffiths, & Pakpour, 2020). As of November 1, 2021, over 246.5 million people have contracted COVID-19, including 4.9 million deaths reported across the world, since the pandemic started (World Health Organization, 2021). These include over 45.8 million cases and 743,926 deaths in the US (Centers for Disease Control and Prevention [CDC], 2021). Because COVID-19 is a very contagious viral disease, it is an inherently social phenomenon, and effective limitation of social contact is essential to successfully contain it (Marroquín et al., 2020). Therefore, many countries

around the world, including the US, have implemented strict public health and quarantine measures, such as emphasizing social distancing of 6 feet from others, demanding that people stay at home, restricting travel, closing schools, requiring non-essential businesses to close their doors, and introducing mass lockdowns (Ellis et al., 2020; Marroquín et al., 2020; Xiong et al., 2020). This social isolation together with fear of infection and death, economic instability, job losses, and stress due to the uncertainty of future have taken its toll on global mental health, and made it a research priority to examine mental health in this context (Ellis et al., 2020). Although these public health measures are indispensable for preventing the spread of COVID-19, they may also have a detrimental impact on mental health (Marroquín et al., 2020). This was indeed observed subsequent to earlier pandemics, such as 2009 H1N1 swine flu (Pfefferbaum et al., 2012) and 2003 SARS (Cava, Fay, Beanlands, McCay, & Wignall, 2005; Hawryluck et al., 2004).

COVID-19 is one of the deadliest pandemics in history, and it is predicted to have a deleterious impact on mental health in both the short and long run (Zhong, Huang, & Liu, 2020). Primary measures such as social distancing and quarantines have been of uncertain length because the initial implementation was for a few weeks, but then has extended into many more months and still continues to date (Nabity-Grover, Cheung, & Thatcher, 2020). Social distancing is in sharp contrast with the fundamental human nature to connect with others, resulting in loneliness and onset or worsening of mental health problems (Odekerken-Schröder, Mele, Russo-Spena, Mahr, & Ruggiero, 2020). Research so far has indeed documented the negative effects of social isolation and other COVID-19 related preventive measures on mental health (Brooks et al., 2020; Fitzpatrick, Harris, & Drawve, 2020; Gao et al., 2020; Khan et al., 2020; Marroquín et al., 2020; Ni et al., 2020; Serafini et al., 2020; Xiong et al., 2020). For example, in

a nationwide survey of 10,368 US adults, conducted in March 2020, more than 25% of the respondents reported having severe anxiety symptoms (Fitzpatrick et al., 2020), while another nationwide survey also carried out in March 2020 revealed a significant association between social distancing and higher depressive symptoms (Marroquín et al., 2020). In addition, multiple literature reviews reported research showing high prevalence of emotional distress, generalized anxiety, insomnia, frustration, loneliness, and depression during the pandemic (Brooks et al., 2020; Serafini et al., 2020). Similarly, in a systematic review of studies conducted so far, Xiong et al. (2020) reported that during the pandemic, high rates of depression, anxiety, post-traumatic stress disorder, and psychological distress were reported among the general population in the US, China, Italy, Spain, Iran, and Turkey. The same systematic review has also found student status, younger age (<40 years), unemployment, female gender, presence of mental disorders, and frequent exposure to pandemic related news to be among the risk factors for mental health problems during the pandemic.

As for college students, along with experiencing fear of catching the virus, strict isolation policies resulted in campus closures, loss of part-time jobs, not being able to see their families and friends for an uncertain period of time, and delay in graduation ceremonies, sports, and other campus events (Khan et al., 2020; Lee, 2020; Zhai & Du, 2020). Results from a survey of 7,143 college students in China indeed revealed that 24.9% of the sample were experiencing anxiety symptoms during the pandemic (Cao et al., 2020). In addition, universities suddenly switched the mode of instruction from face-to-face to online teaching and learning, which brought about hurdles for students with no access to computers or internet (Sahu, 2020). This also likely took a toll on mental health of college students, who may have had difficulty keeping up with their studies (Sahu, 2020).

With the prolonged social distancing and home stay, people of all ages – particularly adolescents and young adults – who have access to smartphones, computers, and Internet, turned to social media more than ever to maintain connectivity, seek support, and follow the pandemic related news (Ellis et al., 2020; Lin et al., 2020; Nabity-Grover et al., 2020; Ni et al., 2020; Zhao & Zhou, 2020; Zhong et al., 2020). Indeed, a 61% increase has been documented in use of social media platforms around the world (Holmes, 2020). From February to March 2020, Facebook and Instagram use soared 40% across the world, while use of messaging function on Facebook Messenger, Instagram, and WhatsApp rose 70% during the same period (Holmes, 2020). Twitter has also witnessed 23% increase in daily active users compared to 2019 (Holmes, 2020), whereas Snapchat has seen 20 million more users this year (Hutchinson, 2020). Such an increase in social media use, however, may have both positive and negative effects on mental health (Ni et al., 2020). Social media provide an environment where fake news, fear evoking misinformation about the virus, and rumors can easily spread, yet these technologies also enable seeking and providing social support during a time of physical isolation (Ni et al., 2020). Research published since the start of the pandemic have indeed shown a double-edged impact (Gao et al., 2020; Luo, Li, Chen, & Tang, 2020; Ni et al., 2020; Saud, Mashud, & Ida, 2020; Zhao & Zhou, 2020; Zhong et al., 2020). Gao et al. (2020), Ni et al. (2020), and Zhao and Zhou (2020) all found a significant association between exposure to COVID-19 related news on social media and greater symptoms of depression and anxiety. On the other hand, in a survey of 348 adults, conducted in Indonesia in April 2020, 78.2% of the respondents reported that their social media friends shared how they felt about social distancing and exchanged social support during the pandemic (Saud et al., 2020). Similarly, another study surveyed 320 adults in Wuhan, China in February 2020, and

found a significant association between social media use during the pandemic and received social support (Zhong et al., 2020).

2.7 Overview of the Current Study

Drawing on theoretical approaches that aid in understanding as well as predicting individuals' help-seeking behaviors, specifically social cognitive theory (Bandura, 1986, 2004, 2009) and stigma and labeling theory (Link et al., 1989; Link & Phelan, 2013), this study aims to examine some of the factors that may be associated with college student's mental health related social support seeking behavior on social media. Specifically, this study will investigate how college students' life stressors may influence their mental health related support seeking behavior on social media and how emotional well-being might mediate this relationship. In addition, the study will examine the moderating effects of self-efficacy, expected positive and negative outcomes, and stigma (perceived public stigma and self-stigma) on the influence of emotional well-being. The present study will include a cross-sectional survey of social media using college students.

Despite the growing use of various social media technologies and thriving research on social media-based support, research on what factors may influence mental health related social support seeking on social networking sites and mobile applications is limited. As the literature review here shows, most of the studies focus on outcomes associated with seeking and receiving social media-based support as well as types and sources of social support (Attai et al., 2015; Gilmour et al., 2020; Greene et al., 2011; Razzell et al., 2014; Wright, 2012; Zhang, 2017). Most importantly, there has been a limited use of theoretical frameworks to guide research on mental health help-seeking behaviors in online contexts (Pretorius et al., 2019). Therefore, using social cognitive theory as an overarching framework, this study will contribute to the literature on

social media, social support, and mental health behavior in several ways. Social cognitive theory suggests that people learn through direct or observational experiences and form expectations concerning outcomes their behaviors would generate (Bandura 1986, 2004, 2009). So, there is a need to explore people's direct experience with the use of social media for mental health support seeking, their perceptions regarding others' social media-based mental health support seeking behaviors, as well as their outcome expectations with regard to seeking social support. Thus, using SCT as a framework, this study will describe college students' use of social media for mental health support, their perceptions of others' social media use for mental health support, and the relationship between expected outcomes of seeking social support and use of a certain social media platform/app more than others for mental health support (i.e., Facebook, Twitter, Instagram, Snapchat, and TikTok). Social cognitive theory also argues that in the context of health-related behaviors, self-efficacy (i.e., one's beliefs concerning their ability to perform a behavior), outcome expectations, and perceived barriers to enacting a behavior (e.g., perceived stigma that might make a person avoid seeking help for their mental health problems) are important factors that determine the performance of a behavior (Bandura, 2004). Hence, this study will also examine the predictors of social media-based support seeking, the relationship between life stressors and social media-based support seeking as well as how emotional well-being might mediate this relationship, and the moderating effects of self-efficacy, outcome expectations, and stigma (perceived public stigma and self-stigma) on the influence of emotional well-being.

First, social cognitive theory is centered on the idea that humans learn via direct as well as observational experience (Bandura, 1986, 2004, 2009). Observational learning is especially important since most of the time people tend to learn by observing others' actions and outcomes

their actions produce. As a result, people form beliefs and expectations about what outcomes their own behaviors would generate. On social media platforms/apps, people have the opportunity to observe other users' posts including various social support seeking behaviors as well as feedback those behaviors/posts generate. Thus, either by seeking support themselves or by seeing other users' support seeking posts, individuals may form beliefs concerning feedback/outcomes their mental health support seeking behaviors would generate. However, no research has been located that explores individuals' direct experience with social media-based mental health support seeking, their perceptions regarding other users' social media-based mental health support seeking behaviors, or their outcome expectations with regard to seeking social support. In addition, constantly evolving social media sites and apps bring along a variety of technological affordances while offering information, privacy, and conversation control to varying degrees and being used for distinct objectives such as self-documentation, entertainment, and networking (Fox & McEwan, 2020). This in turn might influence what feedback/outcomes users expect from seeking mental health support on a particular social media site/app and how this may be related to use of a certain site/app more than others for mental health support seeking. However, no research addressing these questions has been located either. Hence, this study aimed to contribute to an understanding of college students' social media-based mental health support seeking behavior, their perceptions of other users' social media-based mental health support seeking behavior, their outcome expectations related to support seeking as well as the relationship between outcome expectations and use of a specific social media platform/app more than others for mental health support seeking.

Second, self-efficacy is the cornerstone to social cognitive theory, since it has a direct impact on behavior through belief in one's capability to effectively use their skills and resources

in tough situations and perform certain actions (Bandura, 2004; Stacey et al., 2015). While there is limited work on self-efficacy beliefs and mental health related help-seeking (Moore et al., 2015), there are studies that found an association between self-efficacy and the level of engagement with health practices like stress management (Jackson et al., 2007), between self-efficacy and problem solving (Li et al., 2018; Trouillet, Gana, Lourel, & Fort, 2009), and between low confidence and poorer coping behaviors (Williams & Kleinfelter, 1989). Research also suggests that an individual's self-efficacy and perceived confidence may be influential not only in their help-seeking decisions but also in their choice of the medium via which they seek help (Best et al., 2014). While some people may not possess the self-efficacy to seek help in person, they – especially young people – may have the confidence and self-efficacy to seek help online (Best et al., 2014). Hence, there is warrant for investigating the role that self-efficacy of help-seeking may play in social media-based mental health support seeking.

Third, outcome expectations related to performance of health behaviors represent another core component of social cognitive theory (Bandura 1986; 2004). Individuals form expectations about consequences they could face if they were to enact certain behaviors. Consequences can be physical (e.g., desirable or undesirable impact of the behavior), social (e.g., other people's approval or disapproval), or self-evaluative (e.g., self-satisfaction or self-dissatisfaction) in nature. Applying social cognitive theory in the context of health-related behaviors, Bandura (2004) suggests that people's expectations of physical, social, or self-evaluative outcomes related to performance of health behaviors may affect whether they enact those behaviors. Past studies indeed revealed that outcome expectations significantly predicted various health behaviors, such as professional help-seeking behavior, nutrition behavior, exercise adherence, and tobacco use behavior (Anderson, Winett, Wojcik, 2007; Anderson-Bill, Winett, Wojcik, 2011; Creamer,

Delk, Case, Perry, & Harrell, 2018; Desharnais, Bouillon, & Godin, 1986; Vogel et al., 2005). Research has specifically shown a connection between expected negative outcomes and nutrition behavior (Anderson et al., 2007) as well as expected positive outcomes and tobacco use behavior among young people (Creamer et al., 2018). Yet, despite the findings revealing a significant connection, no research has been located that examines the relationship between positive and negative outcome expectations and mental health related social support seeking behavior. To fill this gap, this study investigates the role of expected positive and negative outcomes in driving social media-based mental health support seeking behavior.

Fourth, as reviewed earlier, some expected outcomes, such as beliefs concerning social norms and other people's responses to a behavior, might create a barrier to the practice of a health behavior like seeking support for mental health problems. This relates to another useful theoretical framework used in this study, which is Link et al. (1989)'s modified labeling theory. This theory suggests that people hesitate to or avoid seeking help for their mental health issues when they believe they might be rejected and stigmatized by others (Link et al., 1989). In other words, they tend to expect negative outcomes from seeking mental health support and perceive stigma of mental illness as a barrier to social support seeking. This closely ties to social cognitive theory, which emphasizes outcome expectations and perceived barriers as significant factors affecting various health behaviors (Bandura, 2004). Indeed, research has consistently demonstrated stigma of mental illness to be a significant barrier to help-seeking behaviors (Clement et al., 2015; Schnyder et al. 2017; Schomerus & Angermeyer, 2008). These findings include significant associations between various types of stigma (e.g., self-stigma and public stigma) and professional help-seeking behaviors (Corrigan et al., 2016; Dardas et al., 2019; Mulfinger et al., 2019; Vogel et al., 2006). Research demonstrated that individuals with mental

health problems often fear public stigma and suffer from shame or self-stigma, thus refraining from help-seeking to avoid being labeled as crazy (Mulfinger et al., 2019; Pattyn et al., 2014). However, despite the strong connection between stigma of mental illness and help-seeking, there is not as much research on the relationship between various types of stigma and mental health related social support seeking. Existing research shows that fear of negative judgment leads people with mental health concerns and other stigmatized conditions to embrace a guarded approach to coping and avoid seeking support (DeLoveh & Cattaneo, 2017; Jennings et al., 2020). Furthermore, although individuals – especially young adults – with mental health difficulties report interacting with their peers and expressing their thoughts and feelings on social media as a coping strategy that allows them to overcome the barrier of stigma (Gowen, Deschaine, Gruttadara, & Markey, 2012; Naslund, Aschbrenner, Marsch, & Bartels, 2016), no research investigating how perceived public stigma and self-stigma may influence seeking mental health related social support on various social media platforms has been located. Thus, this study aims to unravel the role perceived barriers (public stigma and self-stigma) may play in the context of social media-based mental health support seeking.

Fifth, given the worldwide mental health related ramifications of the COVID-19 pandemic among the general population, including college students who are already vulnerable to mental health problems due to various life stressors (as explained in the literature review here), and even further increase in use of social media technologies during quarantine periods (Ellis et al., 2020; Khan et al., 2020; Marroquín et al., 2020; Nabity-Grover et al., 2020), it is without a doubt that research examining college students' mental health related support seeking behavior on these platforms is needed during this time. While the negative psychological effects of the lockdowns and long periods of quarantine have been shown, social media use during the

COVID-19 pandemic is still unclear (Ni et al., 2020). Most studies so far have focused on mental health problems that have arisen or worsened due to the pandemic (Ellis et al., 2020; Khan et al., 2020; Marroquín et al., 2020; Serafini et al., 2020) or on COVID-19 related news and misinformation circulating on social media platforms and the fear those evoke among the general public (Gao et al., 2020; Ni et al., 2020; Zhao & Zhou, 2020). While it is true that social media technologies can make the dissemination of fake news, rumors, and fear easy during a pandemic, it can also alleviate the negative psychological impact of the pandemic and quarantine by facilitating social support exchange (Ni et al., 2020). In addition, what factors may impact people's decisions to turn to social media technologies to seek social support during the COVID-19 pandemic has not yet been investigated. Social cognitive theory steps in here as well. Much social learning occurs vicariously through observations of others' experiences while outcome expectations are formed by seeing consequences other people face as a result of their actions (Bandura, 1986). In a pandemic environment where people have to physically distance from each other and socially isolate, it is not surprising that increasing use of social media technologies and accordingly observation and social learning on social media becomes especially relevant. Indeed, in a recent study, people reported seeing their social media friends share their social distancing related feelings and seek social support (Saud et al., 2020). However, no research that investigates whether people's observations of reactions to other social media users' support seeking posts and the outcomes they may anticipate as a result of such social learning, such as negative outcomes or perceived stigma, may act as a barrier to their own mental health support seeking behavior on social media. Moreover, self-efficacy beliefs might serve a particularly important role in understanding support seeking on social media in the midst of a pandemic. This is because social media technologies grant their users a greater sense of control over their

support seeking journeys, whereas people's ability to exercise control over their most behaviors that requires in person social interaction are restricted in the midst of the COVID-19 pandemic. Therefore, this study examines how COVID-19 related stressors coupled with already existing life stressors might influence college students' social support seeking on social media via mediation of emotional well-being and how this influence may change depending on college students' self-efficacy of help-seeking, expected positive and negative outcomes of seeking support, and perceived public stigma and self-stigma.

Overall, the purpose of this study is five-fold: (a) to investigate the use of social media for mental health related social support, perceptions of others' social media use for mental health related social support, as well as the relationship between expected positive and negative outcomes of seeking social support and use of a specific social media platform/app more than others for mental health support (i.e., Facebook, Twitter, Instagram, Snapchat, and TikTok); (b) to examine the predictors of social media-based support seeking, specifically, life stressors (including COVID-19 related stressors), emotional well-being, self-efficacy of help-seeking, expected positive outcomes, expected negative outcomes, perceived public stigma, and self-stigma; (c) to investigate the relationship between life stressors and mental health support seeking on social media as well as whether emotional well-being mediates this relationship; and (d) to examine the moderating effects of self-efficacy, outcome expectations (positive and negative) and stigma (perceived public stigma and self-stigma) on the influence of emotional well-being on social support seeking. The following section outlines the research questions and predictions.

2.8 Research Questions and Hypotheses

Research has frequently shown that the social cognitive theory is useful in understanding various health behaviors, such as exercise and nutrition behavior (Huck et al., 2019; Kanekar et al., 2015; Rolling & Hong, 2016; Stacey et al., 2015). According to SCT, the influence of direct or observational learning on behavior hinges on outcome expectations and the performability of a behavior (Bandura, 1986). Thus, a person's decision to act on a health behavior is contingent on whether they perceive the behavior as resulting in favorable outcomes as well as whether they believe they could perform the behavior. Self-efficacy is used to describe an individual's belief regarding the performability of a behavior, which has been indicated to significantly affect health behavior (Bandura 2004; Huck et al., 2019; Kanekar et al., 2015; Rolling & Hong, 2016; Stacey et al., 2015). In addition, stigma (perceived public-stigma and self-stigma) has been found as a significant barrier that influence the performability of help-seeking behaviors (Clement et al., 2015; Jennings et al., 2015; Laidlaw et al., 2016; Seamark & Gabriel, 2018).

Therefore, this study will first explore participants' use of social media for seeking mental health support, their observation of others' social media-based mental health support seeking, and their expected outcomes of seeking social support. Secondly, this study will examine predictors of social support seeking on social media, including life stressors and emotional well-being, self-efficacy of help-seeking, expected positive and negative outcomes of support seeking, and perceived public stigma and self-stigma. Additionally, this study will investigate the mediating role of emotional well-being in the influence of life stressors on social media-based support seeking, and the moderating effects of self-efficacy, expected positive and negative outcomes, perceived public stigma, and self-stigma in the impact of emotional well-being on social media-based support seeking.

2.8.1 Social Media Use, Perceptions of Others' Social Media Use, and Expected Outcomes of Seeking Social Support

As discussed previously, social cognitive theory suggests that people can learn via both direct and observational experience, and learning through observation of models is a type of vicarious learning (Bandura, 1986, 2004, 2009). In the context of social media use for social support, one can learn both directly by performing the support seeking behavior on social media and vicariously by observing other users' social media-based support seeking behavior. In addition, outcome expectations are important in the context of how direct or observational learning impacts behavior (Bandura, 1986). Through direct (e.g., seeking support on social media) or observational learning (perceiving others' use of social media for support), social media users can form beliefs about the consequences of their support seeking behavior, such as pleasant or unpleasant effects (e.g., feeling more connected or disconnected), approval or disapproval by others (e.g., experiencing acceptance or rejection), and self-satisfaction or self-dissatisfaction (e.g., feeling better or worse) (Bandura 1986; 2004). Furthermore, ever growing social media sites and apps come with a variety of technological features and allow information, privacy, and interaction control to different degrees (Fox & McEwan, 2020). This in turn might influence outcomes users expect from seeking social support for mental health on a certain platform/app and their use of a specific platform/app more than others for mental health support seeking. Therefore, it is important to explore college students' use of social media for mental health related social support, their perceptions of others' use of social media for mental health support, and their outcome expectations with regard to using social media for support as well as how this may be related to use of a specific platform/app more than others for mental health related support seeking. Also, research has indicated that the majority of studies on social media-

based social support have examined Facebook or Twitter-based support (Meng et al., 2017). However, research on Instagram and Snapchat-based social support is scant, while no research has been located on TikTok-based social support. And research comparing these popular platforms and apps in terms of their use for social support is sparse as well. Thus, the following research questions are proposed:

Research Question 1: Will there be differences in frequency of use of Facebook, Twitter, Instagram, Snapchat, and TikTok for mental health related social support seeking?

Research Question 2: Will there be differences in perceptions of others' frequency of Facebook, Twitter, Instagram, Snapchat, and TikTok use for mental health related social support seeking?

Research Question 3: Will there be differences in (a) expected positive outcomes and (b) expected negative outcomes of seeking social support among people who use Facebook, Twitter, Instagram, Snapchat, and TikTok the most for mental health related social support seeking?

2.8.2 Life Stressors and Emotional Well-Being as Predictors of Social Support Seeking on Social Media

Research has shown that college students have been reporting record low levels of emotional well-being due to various life stressors, such as academic pressure, financial hardships, separation from family, and new life or work responsibilities (Hunt & Eisenberg, 2010; Iarovici, 2014; Kroshus et al., 2021; Pedrelli et al., 2015). Moreover, the recent COVID-19 pandemic has created additional stressors for college students due to loss of part-time jobs, social isolation from friends and families, fear of infection, challenges associated with online learning, and more (Khan et al., 2020; Lee, 2020; Zhai & Du, 2020). Early studies indicated that young people resort to social support from informal sources, such as friends/peers and family, as a

coping strategy for various problems (Zimmer-Gembeck & Skinner, 2011). With the advancement of online technologies, especially social media platforms and apps, they have turned to the digital world to fulfill their social support needs (Zhang, 2017). Indeed, research has revealed that life stressors positively predict young people's social support seeking on Facebook (Bazarova, Choi, Whitlock, Cosley, & Sosik, 2017; Frison & Eggermont, 2015).

Affective well-being should also be related to social support seeking. Some past studies found that lower scores on affective well-being and psychological functioning were related to lower intentions to seek formal and informal help (Goodwin et al., 2016; Kenny et al., 2016; Nagai, 2015; Zochil & Thorsteinsson, 2018). However, early research demonstrated that those with lower levels of well-being were more willing to use online support groups/communities (Rickwood et al., 2015). Similarly, another past study revealed that college students facing higher levels of mental distress were more likely to seek help online (Ryan et al., 2010). In the last decade, earlier forms of online communities have become less popular, as use of recent social media technologies among young adults has increased from 9 to 90% (Pew Research Center, 2019). Research indeed suggests that college students have been increasingly using social media platforms/apps to fulfill various needs, such as social support exchange for life stressors and psychological distress (Zhang, 2017). Therefore, it is expected that college students who are dealing with life stressors and decreasing emotional well-being resort to social media-based support seeking.

Studies have uncovered the negative impact of various life stressors on young people's psychological well-being (Frison & Eggermont, 2015; Kroshus et al., 2021). Specifically, previous research has shown that stressors related to school, friends, finances, and family negatively affect college students' mental health, leading to a decrease in their psychological

functioning and emotional well-being (Frison & Eggermont, 2015; Hunt & Eisenberg, 2010; Kroshus et al., 2021; Pedrelli et al., 2015). Because life stressors influence emotional well-being, and lower well-being in turn motivates online support seeking, emotional well-being should mediate the expected relationship between life stressors and social support seeking on social media. Based on the discussion in the previous paragraphs, the following hypotheses are proposed:

Hypothesis 1: The higher the number of life stressors, the more respondents will seek social support on social media.

Hypothesis 2: Emotional well-being will negatively predict social support seeking on social media such that lower emotional well-being will be associated with greater support seeking on social media.

Hypothesis 3: The higher the number of life stressors, the lower emotional well-being respondents will have.

Hypothesis 4: Emotional well-being will mediate the relationship between life stressors and social support seeking on social media.

2.8.3 Self-Efficacy as a Predictor of Social Support Seeking on Social Media

According to social cognitive theory, a high level of self-efficacy is vital for performing certain behaviors, including health-related behaviors (Bandura, 1998; Bandura, 2004). Indeed, multiple meta-analyses of correlational studies demonstrated that self-efficacy beliefs predict a variety of health behaviors (McEachan, Conner, Taylor, & Lawton, 2011; Sheeran et al., 2016). Specifically, studies found that high self-efficacy is crucial for health behaviors, such as safe sex practices among college students (Kanekar et al., 2015) and dietary behavior among obese children (Rolling & Hong, 2016). In addition, studies on the relationship between self-efficacy

and coping behaviors indicated that self-efficacy predicts problem solving (Li et al., 2018; Trouillet et al., 2009) and engagement with health practices, such as stress management (Jackson et al., 2007). Therefore, it was predicted that:

Hypothesis 5: Self-efficacy in performing help-seeking behaviors will be positively related to social support seeking on social media.

2.8.4 Expected Outcomes as Predictors of Social Support Seeking on Social Media

Outcome expectations are another core component of social cognitive theory in health contexts (Bandura, 1986, 2004). Previous research has indicated that expected positive and negative outcomes are significant determinants of professional help-seeking (Vogel et al., 2005). Similarly, studies have shown that more positive and less negative outcome expectations were related to performance of better nutrition behavior and more physical activity (Anderson-Bill et al., 2011) and less tobacco use among youth (Creamer et al., 2018). Hence, the following predictions were made:

Hypothesis 6: Expecting positive outcomes of seeking social support will be associated with more social support seeking on social media.

Hypothesis 7: Expecting negative outcomes of seeking social support will be associated with less social support seeking on social media.

2.8.5 Perceived Public Stigma and Self-Stigma as Predictors of Social Support Seeking on Social Media

As described in the theoretical grounding of this research, perceived barriers to the practice of health behaviors are among the most important components of the social cognitive theory in health contexts (Bandura, 2004). What is more, according to the modified labeling theory, people develop expectations and beliefs as to whether others will reject and discriminate

someone with a mental disorder as an employee, friend, significant other, or neighbor as well as whether others will devalue someone with a mental disorder as less reliable, competent, and smart (Link 1982, 1987; Link et al., 1989; Link & Phelan, 2013). These beliefs and expectations are especially relevant for someone who then develops a mental disorder, since the possibility of rejection and devaluation becomes personally relevant. Concern of being devalued and discriminated against (i.e., perceived stigma) may then become decisive in performance of help-seeking behaviors for an individual who develops a mental illness (Link & Phelan, 2013). Indeed, past studies as well as systematic reviews and meta-analyses found that perceived public stigma and self-stigma of mental illness are significant barriers to help-seeking (Clement et al., 2015; Corrigan et al., 2016; Dardas et al., 2019; Mulfinger et al., 2019; Schnyder et al. 2017; Schomerus & Angermeyer, 2008; Vogel et al., 2006). Investigating the relationship between stigma and disclosure among college students, Corrigan et al. (2016) found a significant association between feeling ashamed of one's mental health problem (i.e., internalized / self-stigma) and secrecy. Similarly, another study revealed that fear of public stigma and possible loss of friendships were factors negatively influencing individuals' help-seeking decisions (Mulfinger et al., 2019).

In the context of online help-seeking, theoretical and empirical examinations of the influence of perceived public stigma and self-stigma on support seeking suggest mixed findings (Rains & Young, 2009; Teo et al., 2018; White & Dorman, 2001; Wright, 2002; Wright & Rains, 2013). On the one hand, past research argues that increased anonymity in earlier forms of online platforms (e.g., chat applications, private messages, discussion forums) might make members experience less self-stigma and feel more comfortable talking about sensitive topics without disclosing their identity (Rains & Young, 2009; Wright, 2002). Indeed, earlier studies suggests

that perceiving less public stigma and experiencing less self-stigma is associated with availing informal help in online support groups for stigmatized health issues like depression (Wright & Rains, 2013). On the other hand, today's heavily mobile world laden with a wide variety of social media sites and applications makes complete anonymity almost impossible (Chen et al., 2019; Fox & McEwan, 2020). Some of these technologies make one's online social interactions visible to large audiences, which may lead to extra caution in self-presenting to be in congruence with social norms (Zhang, 2017). Indeed, previous research on Facebook-based help-seeking suggests that concern of presenting a positive self-image and perception of stigma about self-disclosing mental health problems on Facebook are related to less likelihood to seek social support on Facebook (Teo et al., 2018). Thus, the following predictions were made:

Hypothesis 8: Perceived public stigma will be negatively related to social support seeking on social media.

Hypothesis 9: Self-stigma will be negatively related to social support seeking on social media.

2.8.6 Moderators of the Role of Emotional Well-Being in Social Media-Based Support Seeking

In addition to directly predicting social support seeking on social media, self-efficacy, expected outcomes, and stigma may also moderate the relationship between emotional well-being and social media-based support seeking. Specifically, although lower emotional well-being should motivate support seeking, this relationship may be stronger for those who have higher self-efficacy, expect better outcomes, and perceive fewer barriers to support seeking (Bandura 2004; Corrigan et al., 2016; Jackson et al., 2007; Mulfinger et al., 2019; Vogel et al., 2005).

It is expected that the relationship between emotional well-being and social media-based support seeking will differ depending on the respondents' level of self-efficacy in performing help-seeking behaviors. Past research has found that higher self-efficacy beliefs were associated with better coping behaviors, such as problem solving and stress management (Jackson et al., 2007; Li et al., 2018; Trouillet et al., 2009). Thus, it is expected that the influence of emotional well-being on social support seeking should be more pronounced among people with higher self-efficacy. Based on this discussion, the following moderation hypothesis is proposed:

Hypothesis 10: The negative relationship between emotional well-being and social support seeking on social media will be stronger among people with higher self-efficacy of help-seeking.

Additionally, positive and negative outcome expectations are expected to moderate the relationship between emotional well-being and support seeking. As discussed earlier, studies found that expecting more positive and less negative outcomes of enacting various health behaviors, such as formal help-seeking (Vogel et al., 2005), were related to performance of those behaviors. Hence, the influence of emotional well-being on social support seeking should be more pronounced among people with more positive and less negative outcome expectations. Based on this argument, the following hypotheses are proposed:

Hypothesis 11: The negative relationship between emotional well-being and social support seeking on social media will be stronger among people who expect more positive outcomes of support seeking.

Hypothesis 12: The negative relationship between emotional well-being and social support seeking on social media will be stronger among people who expect less negative outcomes of support-seeking.

Finally, stigma should moderate the relationship between emotional well-being and social support seeking on social media. Beliefs and fears concerning discrimination, social rejection, and devaluation (perceived public-stigma) as well as feelings of shame and internalization of discrimination (self-stigma) might have serious ramifications like avoiding help-seeking or treatment (Link & Phelan, 2013). Considering that experiencing self-stigma and perceiving public stigma are inherently negative and unhealthy feelings, they should likely interact with emotional well-being to predict social support seeking. In addition, past research has consistently shown that stigma is a significant barrier to the performance of mental health-related help-seeking behavior (Corrigan et al., 2016; Dardas et al., 2019; Schnyder et al. 2017). Accordingly, it can be expected that the relationship between emotional well-being and social support seeking on social media will be more pronounced among people who perceive less public stigma and self-stigma. Based on this prediction, the following hypotheses are proposed:

Hypothesis 13: Perceived public stigma will moderate the negative relationship between emotional well-being and social support seeking on social media, such that the relationship will be stronger among people with lower levels of perceived public stigma.

Hypothesis 14: Self-stigma will moderate the negative relationship between emotional well-being and social support seeking on social media, such that the relationship will be stronger among people with lower levels of self-stigma.

3 METHOD

3.1 Research Design Overview

The goal of this research project was to investigate the factors that influence college students' mental health related social support seeking behavior on social media (Facebook, Twitter, Instagram, Snapchat, and TikTok). An online survey was conducted among a sample of

college students at Georgia State University (GSU). The online, self-administered questionnaire measured participants' life stressors, emotional well-being, social support seeking on social media, self-efficacy in performing help-seeking behaviors, expected positive and negative outcomes of seeking social support on social media, perceived public stigma, self-stigma, social media use, and background characteristics, such as demographics, overall social media use, and personal experience with mental health issues.

3.2 Procedures

Prior to contacting potential participants, Georgia State University's Institutional Review Board (IRB) approved the proposed data collection methods, an informed consent form, as well as the survey instruments. Upon receiving IRB approval, the student investigator emailed the instructors of undergraduate classes in the Department of Communication to explain the purpose of the study, the extra credit instructors would need to offer participants, and other study considerations. Because the purpose of the study was to understand college students' support seeking on social media, the use of college students as subjects was necessary.

Twenty-eight instructors teaching a total of 29 undergraduate 1000 and 2000 level communication classes agreed to announce the study in their classes. In one of these classes, none of the students chose to participate. Therefore, the study included students from 28 classes taught by 27 instructors. The instructors posted an online announcement about the study on their course page on iCollege (GSU's online learning management system) and included a link to the web survey. The student investigator wrote the announcement that contained information regarding the research, extra credit incentive, and the deadline for completing the survey.

The survey took place online through Qualtrics (www.qualtrics.com) from April 19, 2021 until April 27, 2021. The recruitment message, informed consent form, and study measures are

listed in Appendices A, B, and C. Those who wanted to participate in the survey visited the Qualtrics link provided in the announcement. Participants were first asked to read the informed consent form (Appendix B) and chose either “I agree” to take part in the survey or “I decline” to refuse to participate in the survey. In the informed consent form, participants were told that the study aimed at understanding mental health and social support behavior on social media. They were also informed that they would receive extra credit (1% of the points in the course) for completing the survey. Participants who were not at least 18 years of age and/or who did not want to take part in the survey were provided with an alternative assignment (a 1-page paper discussing how their class helped prepare for the career they wanted to pursue) that could be completed for equal amount of extra credit in lieu of the study survey.

Once consented, participants were taken to the survey and self-reported their life stressors, emotional well-being, social support seeking on social media, self-efficacy, expected positive and negative outcomes of seeking social support on social media, perceived stigma, social media use, and answered some questions about their background characteristics, such as demographics, overall social media use, and personal experience with mental health issues. Participation was voluntary and confidential, and no identifying information was connected to study survey responses. Those who chose “I agree” could elect to skip and/or stop answering at any point if they wanted. At the end of the study survey, participants were taken to an extra credit survey through a separate link and reported their full name, course instructor, and course title for the purpose of assigning extra credit. Participants who refused to take part in the survey were directed to a page that thanked them for their time and told them to email the student investigator about the alternative extra credit assignment.

3.3 Participants

There were 1126 submitted surveys, but 186 were dropped from the study. Among those dropped, 23 were duplicate responses. For these respondents, only their first submission was retained for the purpose of data analysis. In addition, 75 respondents spent less than 300 seconds (5 minutes) to fill out the survey while 31 people completed less than half of the survey. Also, considering the focus of this study on young adult college students (18 to 29 years of age), 26 participants who were older than 30 years of age as well as 31 participants who did not report their age were also among those dropped. After deletion of declined surveys, duplicate responses, incomplete questionnaires, and responses that did not fall within the age range needed for this study, a total of 940 completed surveys remained.

In the final sample used for the study, the age of the respondents ranged from 18 to 29 years (M = 19.84, SD = 2.02). The sample included 585 females (62.2%), 324 males (34.5%), 20 non-binary (2.1%), and 4 other (0.4%). Seven respondents (0.7%) did not report their gender. More than one-third of participants (38.0%) identified as Black/African American (n = 357), 20.9% as Asian/Pacific Islander (n = 196), 19.3% as White/Caucasian (n = 181), 10.3% as Hispanic/Latino (n = 97), 0.1% as Native American (n = 1), 8.5% as multiracial (n = 80), 1.0% as other (n = 9), and 2% did not report their race/ethnicity (n = 19). In addition, 49.3% of the respondents reported their year in college as Freshman (n = 463), 29.6% as Sophomore (n = 278), 14.9% as Junior (n = 140), 6.0% as Senior (n = 56), and 0.3% did not report their year in college (n = 3). All 940 participants (100%) reported their major in college, and more than 90 different majors were reported. All participants reported using social media.

Participants also indicated the frequency of their overall social media use, their use of each of five social media platforms/apps, as well as their personal experiences with mental health

issues and access to mental health care. Among the 940 respondents, 51% reported using social media “always” (n = 479), 41.5% “often” (n = 390), 6.1% “sometimes” (n = 57), and 1.5% “rarely” (n = 14). As for their use of each of five social media platforms/apps, Instagram was used most by participants (93.5%; n=879), followed by Snapchat (82.3%; n=774), TikTok (76.7%; n=721), Twitter (66.9%; n=629), and Facebook (50.0%; n=470). In addition, 27.7% of the participants (n = 260) reported that they had been diagnosed with or treated for one or more mental health conditions, and 57.4% (n = 540) reported that they have access to affordable mental health care, if they should need it. Among the sample, 18.5% (n = 174) reported that they had been diagnosed or treated for depression, 18.5% (n = 174) for anxiety disorder, 4.0% (n = 38) for eating disorder, 3.3% (n = 31) for post-traumatic stress disorder, 2.4% (n = 23) for bipolar disorder, and 12.8% (n = 120) for Other.

3.4 Measures

This study measured participants’ social support seeking on social media, life stressors, emotional well-being, self-efficacy in performing help-seeking behaviors, expected positive and negative outcomes of seeking social support on social media, perceived public stigma, self-stigma, social media use, and background characteristics. The measures can be found in Appendix C.

3.4.1 Social Support Seeking on Social Media

Participants’ social support seeking behavior on social media was assessed using six items adapted from Norberg, Lindblad, and Boman (2006). Examples of the items include “I share my worries with others through social media postings (texts/ photos/videos)”, “I ask others for help through social media postings (texts/ photos/videos)”, and “I seek comfort and understanding from others through social media postings (texts/ photos/videos)”. All six items

were rated on a 5-point scale (1 = never to 5 = always). The six items were averaged (*M* = 2.21, *SD* = .88). Scale reliability was high (α = .88).

3.4.2 College Student's Stressful Event Checklist

Participants' life stressors (covering academic, financial, health, and social areas) were measured using the College Student's Stressful Event Checklist adapted from the Arizona State University (ASU, n.d.), which is originally an adaptation of the Social Readjustment Scale by Holmes and Rahe (1967). Thirty-two items construct this scale. In addition, six items were added to address the COVID-19 related stressors college students have been facing. The six items were adapted from Ellis et al. (2020). Thus, in total, thirty-eight items construct this scale. Examples of the items include "Change in health of a family member", "Increased workload at school", "Threat to major source of income", "Difficulty with roommate(s), and "negative impact on my own or my family's finances due to the COVID-19 pandemic". Participants marked the events that have occurred in their life in the past year. The number of items endorsed were summed to create an index where higher scores indicated more stressors experienced in the past year (*M* = 10.3, *SD* = 5.68, range = 0 to 34).

3.4.3 Emotional Well-Being

Participants' emotional experiences were measured based on Diener et al.'s (2010) Scale of Positive and Negative Experience (SPANE). This scale includes a list of positive and negative emotion terms covering a wide range of emotional experiences that affect mental health and well-being (Diener et al., 2010). In this scale, participants were asked how often they felt each of the listed twelve emotions in the last week. The list is composed of six positive emotions (i.e., positive, happy, good, pleasant, joyful, contented) and six negative emotions (negative, sad, unpleasant, angry, bad, afraid). Participants were asked to indicate how often they experienced

each emotion on a 5-point scale, (1 = none of the time to 5 = all of the time). The six items for positive emotions and the six items for negative emotions were scored separately due to the partial independence of the two types of emotions (Diener et al., 2010). The summed score for each subscale (positive emotions and negative emotions) could range from 6 to 30. Means and standard deviations were calculated for the positive emotion subscale (M = 19.42, SD = 4.18) and the negative emotion subscale (M = 16.45, SD = 4.61). Scale reliabilities were high (α = .89 for positive emotions and α = .86 for negative emotions).

To calculate the Affect Balance scale, the score for the negative emotion subscale was subtracted from the score for the positive emotion subscale. Therefore, the resulting Affect Balance scores could range from -24 to 24. A participant with the highest score of 24 reports that they never experience any of the negative emotions and always experience all of the positive emotions, whereas a participant with the lowest score of -24 reports that they always experience all of the negative emotions and never experience any of the positive emotions.

3.4.4 Self-Efficacy in Performing Help-Seeking Behaviors

Self-efficacy in performing help-seeking behaviors was assessed by using four items adapted from King, Strunk, and Sorter (2011). Among the nine items used by King et al. (2011), four items are about one's self-efficacy in performing help-seeking behaviors, whereas five items are about self-efficacy in recognizing and helping one's suicidal friends. Therefore, the four items about one's self-efficacy in performing help-seeking behaviors were adopted for this study while the other five items were dropped. Examples of the items include "I feel confident I can use positive coping skills to handle problems" and "I feel comfortable talking to my friends about my problems." All items were rated on a 5-point Likert scale (1 = strongly disagree to 5 =

strongly agree). The four items were averaged (M = 3.56, SD = .84). Scale reliability was high (α = .80).

3.4.5 Expected Positive and Expected Negative Outcomes of Seeking Social Support

Participants' outcome expectations related to seeking social support on social media were measured by using a scale developed by Hoffner (2017) to assess expected responses from others to Facebook posts about emotion and by using the social cognitive theory (Bandura, 1986, 2004). Four items were adapted from Hoffner's (2017) scale, and three items were developed by consulting the outcome expectations component of the social cognitive theory (Bandura, 1986, 2004). As discussed in the literature review, Bandura (1986; 2004) argues that people form beliefs regarding what outcomes their actions would bring about. Outcomes can be physical (pleasant or unpleasant), social (approval or disapproval of others), and self-evaluative (self-satisfaction or self-dissatisfaction). In the context of seeking social media-based support, physical outcomes can be feeling connected or disconnected and social outcomes can be feeling accepted or rejected, while self-evaluative outcomes can be feeling better or worse.

The scale is composed of 7 items for the expected positive outcomes and 7 items for the expected negative outcomes. Items for the expected positive outcomes include "Others will offer empathy and understanding" and "I will feel accepted by others". Items for the expected negative outcomes include "Others will provide negative/unsupportive feedback" and "I will feel rejected by others". All fourteen items were rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The seven items for each subscale were averaged (expected positive outcomes: M = 3.35, SD = .66; expected negative outcomes: M = 2.89, SD = .74). Scale reliabilities were high for both subscales (expected positive outcomes α = .87; expected negative outcomes α = .85).

3.4.6 Perceived Public Stigma

Perceived public-stigma was measured using nine items adapted from Corrigan, Watson, and Barr (2006) and van't Veer, Kraan, Drosseart, and Modde (2006). Examples of the items include "Most people with mental illness cannot be trusted" and "Most people with mental illness tend to cause disturbances/inconveniences". All items were rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The nine items were averaged (M = 3.34, SD = .84). Scale reliability was very high (α = .92).

3.4.7 Self-Stigma

Self-stigma was also measured using nine items adapted from Corrigan et al. (2006) and van't Veer et al. (2006). Examples of the items include "If I experienced mental illness in the next year, I would view myself as untrustworthy" and "If I experienced mental illness in the next year, I would tend to cause disturbances/inconveniences". All items were rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The nine items were averaged (M = 2.32, SD = .75). Scale reliability was high (α = .88).

3.4.8 Social Media Use

Participants' use of social media (i.e., Facebook, Twitter, Instagram, Snapchat, and TikTok) was measured using three items for each platform, modified from Rosen, Carrier, and Cheever (2013). Items include "how often do you use [social media platform]?", "how often do you look at [social media platform] postings?", and "how often do you post texts/photos/videos on [social media platform]?". All items were rated on a 5-point scale (1 = never to 5 = always). The three items for each platform were averaged (Facebook: M = 1.74, SD = .96; Twitter: M = 2.35, SD = 1.26; Instagram: M = 3.45, SD = 1.04; Snapchat: M = 2.93, SD = 1.28; TikTok: M =

2.83, *SD* = 1.3). Scale reliabilities were all high (Facebook: α = .93; Twitter: α = .93; Instagram: α = .87; Snapchat: α = .94; TikTok: α = .84).

In addition, participants were asked questions about their frequency of Facebook, Twitter, Instagram, Snapchat, and TikTok use for seeking mental health support as well as their perceptions of other people's frequency of Facebook, Twitter, Instagram, Snapchat, and TikTok use for seeking mental health support. The items are "how often do you seek social support for mental health issues by posting on each of the following social media platforms/apps?" and "how often do you see other people seek social support for mental health issues by posting on each of the following social media platforms/apps?". Both items were rated on a 5-point scale (1 = never to 5 = always). Means and standard deviations for the participants' own use of Facebook (*M* = 1.29, *SD* = .69), Twitter (*M* = 1.52, *SD* = .93), Instagram (*M* = 1.85, *SD* = 1.10), Snapchat (*M* = 1.74, *SD* = 1.05), and TikTok (*M* = 1.55, *SD* = 1.03) as well as the means and standard deviation for the perceptions of others' use of Facebook (*M* = 2.14, *SD* = 1.35), Twitter (*M* = 2.75, *SD* = 1.41), Instagram (*M* = 3.23, *SD* = 1.17), Snapchat (*M* = 2.90, *SD* = 1.32), and TikTok (*M* = 3.07, *SD* = 1.46) were calculated.

3.4.9 Background Characteristics

Participants were also asked questions about their sociodemographic characteristics (i.e., gender, age, ethnicity, year in college, and major) as well as information related to their overall social media use and personal experience with mental health issues and treatment. Overall social media use was measured with a single question at the beginning of the survey. Participants were asked how often they use any form of social media. The item was rated on a 5-point scale (1 = never to 5 = always), but since all participants included in the final sample used social media, actual scores ranged from 2 to 5. Personal experience with mental health issues were also

measured with a single question. Participants were asked whether they had been diagnosed with or treated for any mental health conditions. The options included some of the most common mental health disorders, namely depression, anxiety disorder, eating disorder, post-traumatic stress disorder, and bipolar disorder, as well as the option "other" to allow the participants to report any other mental health condition they may have been diagnosed with or treated for. Some of these measures were used as control variables.

3.4.10 Additional Measures

Participants' mental well-being were measured based on Tennant et al.'s (2007) Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) while their perceived offline and online social support were measured based on the Multidimensional Scale of Perceived Social Support by Zimet, Dahlem, Zimet, and Farley (1988). These scales were included for potential use in future research, so they were not analyzed in this dissertation.

4 RESULTS

4.1 Overview of Analyses

To test the research questions and hypotheses, a series of analysis of variance (ANOVA), regression, mediation, and moderated mediation analyses were conducted. Statistical analyses were performed using SPSS Statistics for Windows, version 27 and the PROCESS macro, version 4 (Hayes, 2018) for SPSS.

The analyses for this study proceeded in several stages. First, descriptive statistics were generated for all study variables, including a zero-order correlation table involving all key variables. Second, to address the research questions (RQ1 and RQ2), one-way repeated measures ANOVAs were conducted. Facebook, Twitter, Instagram, Snapchat, and TikTok represented the levels of the independent variable (type of social media platform/app). The dependent variables

were the frequency of use for seeking mental health support (RQ1) and perceptions of other people's frequency of use for seeking mental health support (RQ2). And to evaluate RQ3, two separate one-way between-subjects ANOVAs were conducted for each type of expected outcomes (i.e., expected positive and expected negative outcomes). Facebook, Twitter, Instagram, Snapchat, and TikTok represented the levels of the independent variable (type of social media platform/app used most for mental health support seeking) while the dependent variables were expected positive and negative outcomes of seeking social media-based support.

Third, the fourteen hypotheses were examined using hierarchical regression and the PROCESS macro, version 4 (Hayes, 2018). First, to examine predictors of social support seeking on social media (H1, H2, H5, H6, H7, H8, and H9), a hierarchical regression analysis was conducted. Some background characteristics (e.g., gender, personal experience with mental health issues, and overall social media use) were entered in block 1 as control variables. In the following blocks, life stressors, emotional well-being, self-efficacy, expected positive outcomes, expected negative outcomes, and perceived public stigma and self-stigma were entered as predictor variables.

Then, a mediation analysis examined whether the relationship between life stressors and social support seeking was mediated by emotional well-being. Specifically, H3 predicted that the higher the number of life stressors, the lower emotional well-being respondents would have, and H4 predicted that emotional well-being would mediate the relationship between life stressors and social support seeking on social media. The mediation analysis was conducted using Model 4 of PROCESS version 4 (Hayes, 2018). The same background characteristics were included as controls.

Next, analyses examined whether several variables moderated the relationship between emotional well-being and social support seeking. To address H10, which proposed that self-efficacy would moderate the effect of emotional well-being on social media-based support seeking, PROCESS Model 14 (moderated mediation with one moderator) was run. To test H11 and H12, which predicted that expected positive outcomes and expected negative outcomes would moderate the effect of emotional well-being on social media-based support seeking, PROCESS Model 16 (moderated mediation with two moderators) was run. Finally, to examine H13 and H14, which predicted that perceived public stigma and self-stigma would moderate the effect of emotional well-being on social media-based support seeking, PROCESS Model 16 (moderated mediation with two moderators) was run. The same background characteristics were included as controls in all moderation analyses.

4.2 Descriptive Analyses

The means and standard deviations for the key study variables were calculated. These are reported in Table 4.1. Interestingly, participants reported low levels of social support seeking on social media and self-stigma, and moderate levels of expected negative outcomes of seeking support on social media and perceived public stigma. It was also found that they had moderate levels of life stressors, emotional well-being, self-efficacy in performing help-seeking behaviors, and expected positive outcomes of seeking support on social media.

Table 4.2 demonstrates respondents' social media use. The results of descriptive analysis indicate that the most often used platform was Instagram, followed by Snapchat, TikTok, Twitter and Facebook.

Table 4.3 shows participants' use of social media to seek social support for mental health issues, and Table 4.4 shows their perceptions of other people's social media use to seek social

Table 4.1 Means and Standard Deviations of Key Study Variables

	N	*M*	*SD*	Cronbach's α
Support Seeking on Social Media (6 items)	939	2.21	0.88	0.88
Life Stressors (38 items)	940	10.3	5.68	---
Emotional Well-Being (Positive minus Negative)	940	2.95	7.70	
Positive Emotions (6 items)				0.89
Negative Emotions (6 items)				0.86
Self-Efficacy of Help-Seeking (4 items)	934	3.56	0.84	0.8
Expected Positive Outcomes of Support Seeking (7 items)	938	3.35	0.66	0.87
Expected Negative Outcomes of Support Seeking (7 items)	938	2.89	0.74	0.85
Perceived Public Stigma (9 items)	928	3.34	0.84	0.92
Self-Stigma (9 items)	940	2.32	0.75	0.88
Overall Social Media Use	940	4.42	0.67	---

Note. All rating scales ranged from 1 to 5. Life stressors was the sum of the number of stressful life events experienced in the past year, so scores could range from 0 to 38. Emotional well-being scores could range from -24 to +24.

Table 4.2 Social Media Use

	n (percentage) who used the platform at all	*M (SD)*	Cronbach's α
Facebook	470 (50.0%)	1.74 (0.96)	0.93
Twitter	629 (66.9%)	2.35 (1.26)	0.93
Instagram	879 (93.5%)	3.45 (1.04)	0.87
Snapchat	774 (82.3%)	2.93 (1.28)	0.94
TikTok	721 (76.7%)	2.83 (1.30)	0.84

Note. Social media activities used a scale of 1=never to 5=always. The total N was 940. The first column displays the number and percentages (out of the total N) of respondents who had used each platform at all. The range for the number of respondents who gave an answer for each platform was 929 to 936.

Table 4.3 Social Media Use for Mental Health Support

	n (percentage) who used the platform for mental health support	*M (SD)*
Facebook	174 (18.5%)	1.29 (0.69)
Twitter	284 (30.2%)	1.52 (0.93)
Instagram	450 (47.9%)	1.85 (1.10)
Snapchat	394 (41.9%)	1.74 (1.05)
TikTok	276 (29.4%)	1.55 (1.03)

Note. Social media activities used a scale of 1=never to 5=always. The total N was 940. The first column displays the number and percentages (out of the total N) of respondents who had used each platform for mental health support at all. The range for the number of respondents who gave an answer for each platform was 930 to 933.

Table 4.4 Perceptions of Other People's Social Media Use for Mental Health Support

	n (percentage) who perceived that others used the platform for mental health support	*M (SD)*
Facebook	466 (49.6%)	2.14 (1.35)
Twitter	650 (69.1%)	2.75 (1.41)
Instagram	832 (88.5%)	3.23 (1.17)
Snapchat	733 (78.0%)	2.90 (1.32)
TikTok	705 (75.0%)	3.07 (1.46)

Note. Social media activities used a scale of 1=never to 5=always. The total N was 940. The first column displays the number and percentages (out of the total N) of respondents who perceived that others used each platform for mental health support. The range for the number of respondents who gave an answer for each platform was 932 to 934.

support for mental health issues. Interestingly, participants reported low frequency of seeking social support for mental health issues on all five social media platforms/apps, whereas they reported seeing other people seek mental health support on these platforms/apps more frequently.

Furthermore, participants reported the social media platform/app that they use the most to seek social support for mental health issues. The results of the descriptive analysis show that 19% of the participants (n = 179) use Instagram the most for seeking mental health support, 14.3% (n = 134) use Snapchat the most, 10.7% (n = 101) use TikTok the most, 9.3% (n = 87) use Twitter the most, and 2.6% (n = 24) use Facebook the most. In addition, 3.5% of participants (n = 33) reported using other social media (Discord, Whatsapp, Reddit, YouTube, Pinterest, and Tumblr), while 39.9% (n = 375) reported using none of the social media platforms/apps for seeking mental health support.

Participants also reported whether they have been diagnosed with or treated for any mental health condition as well as whether they have access to affordable mental health care, if they should need it. The results indicate that just over one quarter of the sample (n = 260, 27.7%) reported that they had been diagnosed with or treated for a mental health condition. Specifically, 18.5% (n = 174) reported that they had been diagnosed or treated for depression, 18.5% (n = 174) for anxiety disorder, 4.0% (n = 38) for eating disorder, 3.3% (n = 31) for post-traumatic stress disorder, 2.4% (n = 23) for bipolar disorder, and 12.8% (n = 120) for Other. Additionally, 57.4% (n = 540) reported that they have access to affordable mental health care if they should need it.

To examine the relations among variables, Pearson's correlation analyses were conducted. Table 4.5 summarizes the results of zero-order correlations among study variables. The table shows that life stressors was negatively correlated with emotional well-being and self-

Table 4.5 Zero-Order Correlations among Study Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Social Support Seeking on Social Media	--										
2. Life Stressors	.139***	--									
3. Emotional Well-Being	-.186***	-.382***	--								
4. Self-Efficacy of Help-Seeking	-.025	-.182***	.601***	--							
5. Expected Positive Outcomes of Support Seeking	.207***	-.033	.203***	.285***	--						
6. Expected Negative Outcomes of Support Seeking	.062	.145***	-.265***	-.218***	-.142***	--					
7. Perceived Public Stigma	.091**	.169***	-.142***	-.074*	.005	.224***	--				
8. Self-Stigma	.119***	.090**	-.282***	-.262***	-.052	.273***	.101**	--			
9. Overall Social Media Use	.269***	.105**	-.110***	-.038	.098**	-.028	.060	.036	--		
10. Personal Experience with Mental Health Issues	.096**	.299***	-.214***	-.108***	-.039	.113***	.153***	.083*	.004	--	
11. Gender	.081*	.203***	-.101**	-.013	.044	-.007	.086*	-.107**	.181***	.117***	--
12. Age	-.063	-.049	-.001	.053	-.046	.033	-.035	.002	-.087**	.127***	-.078*

Note. Dichotomous variables: gender (0: male, 1: female) and personal experience with mental health issues (0: no, 1: yes)
The N for the correlations ranged from 909 to 940. **p<.05, **p<.01, ***p<.001*

efficacy in performing help-seeking behaviors. In contrast, it was found to be positively correlated with the two stigma variables (perceived public stigma and self-stigma) and with support seeking on social media. Emotional well-being was positively correlated with self-efficacy in performing help-seeking behaviors and expected positive outcomes of seeking support on social media, whereas it was negatively correlated with the two stigma variables (perceived public stigma and self-stigma), support seeking on social media, and expected negative outcomes of seeking support on social media. Greater self-efficacy of help-seeking was associated with less expected negative outcomes of seeking support on social media, less perceived public stigma and self-stigma, and more expected positive outcomes of seeking support on social media. In addition, expected positive outcomes of seeking support on social media was positively related to support seeking on social media, whereas it was negatively related to expected negative outcomes of seeking support on social media. Greater perceived public stigma was associated with greater expected negative outcomes of seeking support on social media, greater self-stigma, and greater support seeking on social media. Self-stigma was also positively correlated with expected negative outcomes of seeking support on social media and support seeking on social media.

As for the background variables, overall social media use, gender, and personal experience with mental health issues were all related to some of the key study variables. Greater overall social media use was related to higher number of life stressors, lower levels of emotional well-being, more support seeking on social media, and greater expected positive outcomes of seeking support on social media. Compared to males, females reported higher number of life stressors, lower levels of emotional well-being, more perceived public stigma, less self-stigma, and more social support seeking on social media. In addition, compared to the participants with

no personal experience with mental health issues, the ones who reported having been diagnosed with or treated for a mental health condition also reported higher number of life stressors, lower emotional well-being, more support seeking on social media, less self-efficacy in performing help-seeking behaviors, greater expected negative outcomes of seeking support on social media, and greater perceived public stigma and self-stigma. Furthermore, being a female was positively correlated with having personal experience with mental health issues. Lastly, age was not related to any of the key study variables. However, it was related to overall social media use and personal experience with mental health issues. Younger participants reported using social media more but having personal experience with mental health issues less.

4.3 Social Media Use for Mental Health and Expected Outcomes of Seeking Social Support

This section examines the research questions asked in this study. Specifically, it provides the results for participants' use of each of five social media platforms/app for mental health support seeking as well as their perceptions of other users' mental health support seeking on these platforms/apps. In addition, this section also lays out the answer to the question of expected outcomes of social support seeking on social media and how these might change based on which social media platform/app respondents use the most for mental health support seeking.

4.3.1 Social Media Use for Mental Health

The first research question asked whether there would be any differences in frequency of Facebook, Twitter, Instagram, Snapchat, and TikTok use for mental health related social support seeking. The respondents were asked to rate how often they seek social support for mental health issues by posting on each of the five platforms/apps. The greatest number of participants used Instagram for mental health support seeking, followed by Snapchat, Twitter, TikTok, and

Facebook. One-way repeated measures ANOVA was conducted to evaluate the differences in frequency of Facebook, Twitter, Instagram, Snapchat, and TikTok use for mental health support seeking. As the results violated the assumption of sphericity, the ANOVA with a Greenhouse-Geisser correction determined that the five social media platforms/apps differed significantly on the frequency of use for mental health support seeking. The results of the repeated-measures ANOVA showed a significant difference among the five social media platforms/apps, $F(3.860, 3562.416) = 94.362$, $p < .001$: Facebook ($M = 1.29$, $SD = .69$), Twitter ($M = 1.52$, $SD = .93$), Instagram ($M = 1.85$, $SD = 1.10$), Snapchat ($M = 1.74$, $SD = 1.04$), and TikTok ($M = 1.55$, $SD = 1.03$).

Post-hoc tests using the Bonferroni correction demonstrated that mental health support seeking was higher for Instagram than all four other platforms/apps, and lower for Facebook than for all other platforms/apps. Of the three platforms/apps that fell in between, mental health support seeking was higher for Snapchat than for Twitter and TikTok, which did not differ from each other. Specifically, Instagram use for mental health support seeking was significantly greater than Facebook use ($p < .001$), Twitter use ($p < .001$), Snapchat use ($p < .01$), and TikTok use ($p < .001$). Snapchat use for mental health support seeking was significantly greater than Facebook use ($p < .001$), Twitter use ($p < .001$), and TikTok use ($p < .001$). TikTok use was for mental health support seeking was significantly greater than Facebook use ($p < .001$). Also, Twitter use was for mental health support seeking was significantly greater than Facebook use ($p < .001$). There was no significant mean difference between Twitter and TikTok use for mental health support seeking ($p = 1.000$).

4.3.2 Perceptions of Others' Social Media Use for Mental Health

The second research question asked whether there would be any differences in perceptions of others' frequency of Facebook, Twitter, Instagram, Snapchat, and TikTok use for mental health related social support seeking. The respondents were asked to rate how often they see other people seek social support for mental health issues by posting on each of the five platforms/apps. The greatest number of participants perceived that other people use Instagram the most for mental health support seeking, followed by Snapchat, TikTok, Twitter, and Facebook. One-way repeated measures ANOVA was conducted to evaluate the differences in respondents' perceptions of other people's frequency of Facebook, Twitter, Instagram, Snapchat, and TikTok use for mental health support seeking. As the results violated the assumption of sphericity, the ANOVA with a Greenhouse-Geisser correction determined that the five social media platforms/apps differed significantly on the participants' perceptions of other people's frequency of use for mental health support seeking. The results of the repeated-measures ANOVA showed a significant difference among the five social media platforms/apps, $F(3.792, 3515.238) = 151.917$, $p < .001$: Facebook ($M = 2.14$, $SD = 1.35$), Twitter ($M = 2.75$, $SD = 1.41$), Instagram ($M = 3.23$, $SD = 1.17$), Snapchat ($M = 2.90$, $SD = 1.32$), and TikTok ($M = 3.07$, $SD = 1.46$).

Post-hoc tests using the Bonferroni correction demonstrated that respondents' perceptions of other people's mental health support seeking were higher for Instagram than all four other platforms/apps, and lower for Facebook than for all other platforms/apps. Of the three platforms/apps that fell in between, perceptions of others' mental health support seeking were higher for TikTok than for Twitter and Snapchat while it was higher for Snapchat than for Twitter. Specifically, perceptions of Instagram use for mental health support seeking were

significantly greater than perceptions of Facebook use ($p < .001$), Twitter use ($p < .001$), Snapchat use ($p < .001$), and TikTok use ($p < .01$). Perceptions of Snapchat use for mental health support seeking was significantly greater than perceptions of Facebook use ($p < .001$) and Twitter use ($p < .05$). Perceptions of TikTok use was for mental health support seeking was significantly greater than perceptions of Facebook use ($p < .001$), Twitter use ($p < .001$), and Snapchat use ($p < .01$). Also, perceptions of Twitter use for mental health support seeking was significantly greater than perceptions of Facebook use ($p < .001$).

4.3.3 Expected Positive and Negative Outcomes of Seeking Social Support

Two separate one-way between-subjects ANOVAs were conducted to examine RQ3, which asked whether there would be differences in (a) expected positive outcomes and (b) expected negative outcomes of seeking social media-based support among people who use Facebook, Twitter, Instagram, Snapchat, and TikTok the most for mental health related social support seeking. Before proceeding with the two one-way ANOVAs, a paired t-test was conducted to compare the means of expected positive and negative outcomes.

When asked to indicate which social media platform they used most to seek mental health support, only a little more than half of the participants (n = 525; 55.9%) selected one of the five social media platforms/apps that were the focus of this study. Specifically, 179 participants selected Instagram as the platform/app they used the most for seeking mental health support, 134 participants selected Snapchat, 101 participants selected TikTok, 87 participants selected Twitter, and 24 participants selected Facebook. Other participants (n = 33) selected another social media platform/app (Discord, WhatsApp, Reddit, YouTube, Pinterest, or Tumblr), or reported using none of the social media platforms/apps for seeking mental health support (n = 375). Therefore, the investigation of RQ3 included 525 participants who reported using one of

the five social media platforms/apps the most for mental health support (i.e., Facebook, Twitter, Instagram, Snapchat, and TikTok, which are the focus of this study). Table 4.6 shows the means and standard deviations of expected positive and negative outcomes for each of the five platforms/apps that are used the most for mental health support seeking by the study participants.

Table 4.6 Means and Standard Deviations of Expected Outcomes for Each of Five Platforms

	Expected Positive Outcomes *M(SD)*	Expected Negative Outcomes *M(SD)*
Facebook	3.63 (0.57)	2.83 (0.73)
Twitter	3.40 (0.63)	2.97 (0.79)
Instagram	3.50 (0.61)	2.82 (0.70)
Snapchat	3.52 (0.63)	2.84 (0.74)
TikTok	3.27 (0.64)	2.99 (0.67)

Note. The N for these analyses was 525 because only 55.9% of the total participants selected one of the five platforms/apps as the one that they use the most for seeking mental health support.

A paired t-test compared the means of expected positive and negative outcomes of seeking social media-based support (the number of respondents who answered the questions about expected outcomes was 938). The results showed a significant difference, with greater expected positive outcomes (M = 3.35, SD = .66) than expected negative outcomes (M = 2.89, SD = .74) of seeking social media-based support, $t(937) = 13.451$, $p < .001$.

Following the paired t-test, two separate one-way ANOVAs were conducted for each type of expected outcomes. The results of the between-subjects ANOVA for expected positive outcomes of seeking social media-based support revealed a significant difference among the five social media platforms/apps used most for mental health support seeking, $F(4, 520) = 3.432$, $p < .01$: Facebook (M = 3.63, SD = .57), Twitter (M = 3.40, SD = .63), Instagram (M = 3.50, SD = .61), Snapchat (M = 3.52, SD = .63), and TikTok (M = 3.27, SD = .64). Fisher's LSD (Least Significant Difference) post-hoc tests were conducted to determine which means differed from

the others. The results showed that expected positive outcomes of seeking support on TikTok were significantly lower than expected positive outcomes of seeking support on Facebook ($p < .05$), Instagram ($p < .01$), and Snapchat ($p < .01$). There were no other significant mean differences among the five platforms/apps. So respondents who used Facebook, Snapchat, and Instagram the most to seek support expected positive outcomes of seeking social media-based support more often than did those who used TikTok the most.

The results of the between-subjects ANOVA for expected negative outcomes of seeking social media-based support revealed no significant difference among the five social media platforms/apps used most for mental health support seeking, $F(4, 520) = 1.257$, $p = .286$: Facebook ($M = 2.83$, $SD = .73$), Twitter ($M = 2.97$, $SD = .79$), Instagram ($M = 2.82$, $SD = .70$), Snapchat ($M = 2.84$, $SD = .74$), and TikTok ($M = 2.99$, $SD = .67$). Because the ANOVA was not significant, no post-hoc tests were conducted to compare the means. So, there was no difference across the five platforms/apps in expected negative outcomes of seeking social media-based support.

4.4 Predictors of Social Support Seeking on Social Media

First, H1, H2, H5, H6, H7, H8, and H9 were examined using hierarchical linear regression on SPSS. Specifically, H1 predicted that higher number of life stressors would lead to greater social support seeking on social media, and H2 predicted that lower emotional well-being would be associated with greater social media-based support seeking. In addition, H5 proposed that self-efficacy of help-seeking would be positively related to social support seeking on social media. Next, H6 predicted that expecting positive outcomes would be associated with more social support seeking on social media, whereas H7 proposed that expecting negative outcomes would be associated with less social support seeking on social media. Finally, H8 and H9

predicted that perceived public stigma and self-stigma would be negatively related to social media-based support seeking, respectively. A regression analysis predicting social support seeking on social media was conducted (see Table 4.7). Background characteristics (gender, personal experience with mental health issues, and overall social media use) were entered in the first block, and life stressors were entered in the next. Emotional well-being was entered in the third block, followed by self-efficacy in the fourth block, expected positive and negative outcomes in the fifth block, and perceived stigma (public stigma and self-stigma) in the sixth block.

Table 4.7 Hierarchical Regression Analysis Predicting Social Support Seeking on Social Media

		B	*SE B*	*ß*	*Δ R²*
1	**Background Characteristics**				.076***
	Gender	.036	.061	.020	
	Personal Experience with Mental Health Issues	.180	.064	.091**	
	Overall Social Media Use	.335	.043	.255***	
2	**Life Stressors**	.014	.005	.088*	.007*
3	**Emotional Well-Being**	-.016	.004	-.137***	.016***
4	**Self-Efficacy of Help-Seeking**	.127	.042	.122**	.009**
5	**Expected Outcomes**				.042***
	Expected Positive Outcomes	.285	.044	.214***	
	Expected Negative Outcomes	.055	.039	.046	
6	**Stigma**				.005
	Perceived Public Stigma	.034	.034	.033	
	Self-Stigma	.079	.040	.067*	
	Overall Regression Analysis				
	Adjusted R^2			.146	
	Degrees of freedom			(10, 877)	
	F value			16.148***	

Note. Betas in the table are betas at entry. Gender was coded 0 = male, 1 = female. Personal experience with mental health issues was coded 0 = no, 1 = yes.
**p<.05, **p<.01, ***p<.001*

Among the background variables, personal experience with mental health issues and overall social media use were both significant predictors of social support seeking on social

media, whereas gender was not a significant predictor. As Table 4.7 demonstrates, participants who had personal experience with mental health issues were likely to seek social support on social media more. In addition, greater overall social media use predicted greater social media-based support seeking.

As for the hypotheses, H1, H2, H5, and H6 were all supported, whereas H7, H8, and H9 were not supported. Table 4.7 demonstrates that, as predicted by H1, respondents who reported a higher number of life stressors were more likely to seek social support on social media. In addition, in support of H2, emotional well-being negatively predicted social media-based support seeking, beyond the contribution of life stressors. That is, lower emotional well-being was associated with greater social media-based support seeking. Similarly, in support of H5, self-efficacy of help-seeking positively predicted social media-based support seeking, after controlling for life stressors and emotional well-being. In other words, higher self-efficacy was related to greater social support seeking on social media. Furthermore, as predicted by H6, expected positive outcomes of social support seeking was also a positive predictor of social media-based support seeking, after controlling for life stressors, emotional well-being, and self-efficacy. That is, expecting more positive outcomes was associated with greater social support seeking on social media. However, H7 was not supported. In other words, expected negative outcomes was not a significant predictor of social media-based support seeking. Lastly, H8 and H9 were not supported either. While perceived public stigma did not significantly predict social media-based support seeking beyond the contributions of previously entered variables, self-stigma did significantly predict social media-based support seeking. Yet, contrary to the proposed hypothesis (H9), self-stigma was positively related to social support seeking on social

media. In other words, higher self-stigma was associated with greater social media-based support seeking.

4.5 The Mediating Effect of Emotional Well-Being on the Influence of Life Stressors

To examine whether the relationship between life stressors and social support seeking on social media was mediated by emotional well-being, a mediation analysis was conducted using Model 4 of PROCESS Version 4 (Hayes, 2018). This analysis tested H3, which predicted that the higher the number of life stressors, the lower emotional well-being respondents would have, and H4, which predicted that emotional well-being would mediate the relationship between life stressors and social support seeking on social media. The same three background characteristics (gender, personal experience with mental health issues, and overall social media use) were included as controls. The model was run using 5,000 bootstrap samples. As shown in Table 4.8, H3 was supported. That is, higher number of life stressors were associated with lower emotional well-being, a = - .464, SE = .044, p < .001, 95% CI [−.550, −.377]. As shown in the regression analysis (and predicted by H1), the total effect of life stressors on social media-based support seeking was positive and significant, c = .013, SE = .005, p < .05, 95% CI [.003, .023]. But once the effect of the mediator was removed, the direct effect of life stressors on social media-based support seeking was not significant, c' = .006, SE = .006, p = .287, 95% CI [−.005, .017]. However, as predicted by H4, the indirect effect of life stressors on social media-based support seeking, through emotional well-being, was significant, ab = .007, SE = .002, 95% CI [.003, .011]. This finding indicates that emotional well-being fully mediated the relationship between life stressors and social support seeking on social media.

Table 4.8 Bootstrapped Indirect Effects of Life Stressors on Social Support Seeking on Social Media

Model	Coefficient	*SE*	*t*	*p*	LLCI	ULCI
Emotional Well-Being						
$F(4, 903) = 43.891$, $p < .001$, $R^2 = .163$						
Constant	12.608	1.576	8	< .001	9.515	15.701
Life Stressors	-.464	.044	-10.505	< .001	-.550	-.377
Gender	-.069	.507	-.135	.893	-1.064	.927
Personal Experience with Mental Health Issues	-1.855	.553	-3.355	< .001	-2.94	-.770
Overall Social Media Use	-.955	.354	-2.67	< .01	-1.65	-.260
Social Support Seeking on Social Media						
$F(5, 902) = 20.329$, $p < .001$, $R^2 = .101$						
Constant	.732	.194	3.78	< .001	.352	1.112
Life Stressors	.006	.006	1.065	.287	-.005	.017
Emotional Well-Being	-.015	.004	-3.835	< .001	-.023	-.007
Gender	.018	.060	.297	.767	-.100	.136
Personal Experience with Mental Health Issues	.104	.066	1.578	.115	-.025	.234
Overall Social Media Use	.320	.042	7.584	< .001	.237	.403
Indirect Effect of Life Stressors on Support Seeking						
	Indirect Effect	***SE***			**Bootstrapped CI**	
Life Stressors -> Emotional Well-Being -> Social Support Seeking	.007	.002			.003	.011

Note. Gender was coded 0 = male, 1 = female. Personal experience with mental health issues was coded 0 = no, 1 = yes.

4.6 The Moderating Effect of Self-Efficacy on the Influence of Emotional Well-Being

To explore H10, which predicted that self-efficacy in performing help seeking behaviors would moderate the effect of emotional well-being on social media-based support seeking, PROCESS Model 14 (moderated mediation) was run using 5,000 bootstrap samples. This tested the mediation model shown in Figure 4.1, with the addition of a moderator; the same control variables were included. Results demonstrated that the interaction was not significant, c = −.005, SE = .004, p = .151, 95% CI [−.012, .002]. In other words, self-efficacy did not moderate the influence of emotional well-being on social support seeking. Therefore, H10 was not supported. The Index of Moderated Mediation (IMM) also showed that the indirect effect of life stressors on social media-based support seeking through emotional well-being was not conditional on self-efficacy of help-seeking, IMM = .002, SE = .002, 95% CI [−.001, .006].

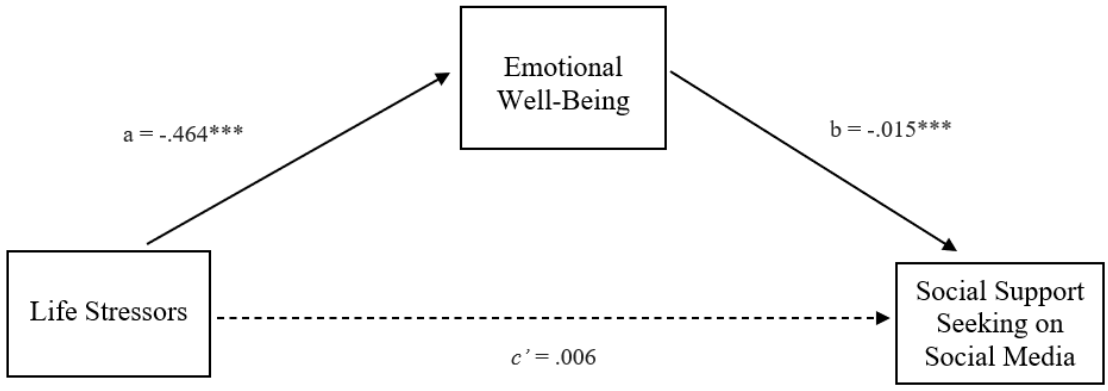

Figure 4.1 Mediating Effect of Emotional Well-Being on the Influence of Life Stressors on Social Support Seeking on Social Media
Note. Covariates of gender, personal experiences with mental health issues, and overall social media use were included.
**p<.05, **p<.01, ***p<.001*

4.7 The Moderating Effect of Expected Outcomes on the Influence of Emotional Well-Being

To test H11 and H12, which predicted that expected positive and negative outcomes would moderate the effect of emotional well-being on social media-based support seeking, PROCESS Model 16 (moderated mediation with two mediators) was run using 5,000 bootstrap samples. This tested the mediation model shown in Figure 4.1, with the addition of two moderators; the same control variables were included. Results demonstrated that the interaction was not significant, $c = -.001$, $SE = .005$, $p = .885$, 95% CI [−.011, .010]. In other words, as opposed to the prediction in H11, expected positive outcomes did not moderate the influence of emotional well-being on social support seeking. The Index of Moderated Mediation (IMM) also showed that the indirect effect of life stressors on social media-based support seeking through emotional well-being was not conditional on expected positive outcomes of support seeking, IMM = .000, $SE = .003$, 95% CI [−.005, .005].

On the other hand, as predicted in H12, findings revealed that expected negative outcomes did moderate the influence of emotional well-being on social support seeking, $c = .011$, $SE = .005$, $p < .05$, 95% CI [.002, .021]. Specifically, Figure 4.2 shows that the negative relationship between emotional well-being and social support seeking on social media was strongest at one SD below the mean of expected negative outcomes, and weakest at one SD above the mean of expected negative outcomes. In other words, lower emotional well-being was more strongly associated with social support seeking on social media when expected negative outcomes was low. The Index of Moderated Mediation (IMM) also showed that the indirect effect of life stressors on social media-based support seeking through emotional well-being was

conditional on expected negative outcomes of support seeking, IMM = −.005, *SE* = .003, 95% CI [−.011, −.001].

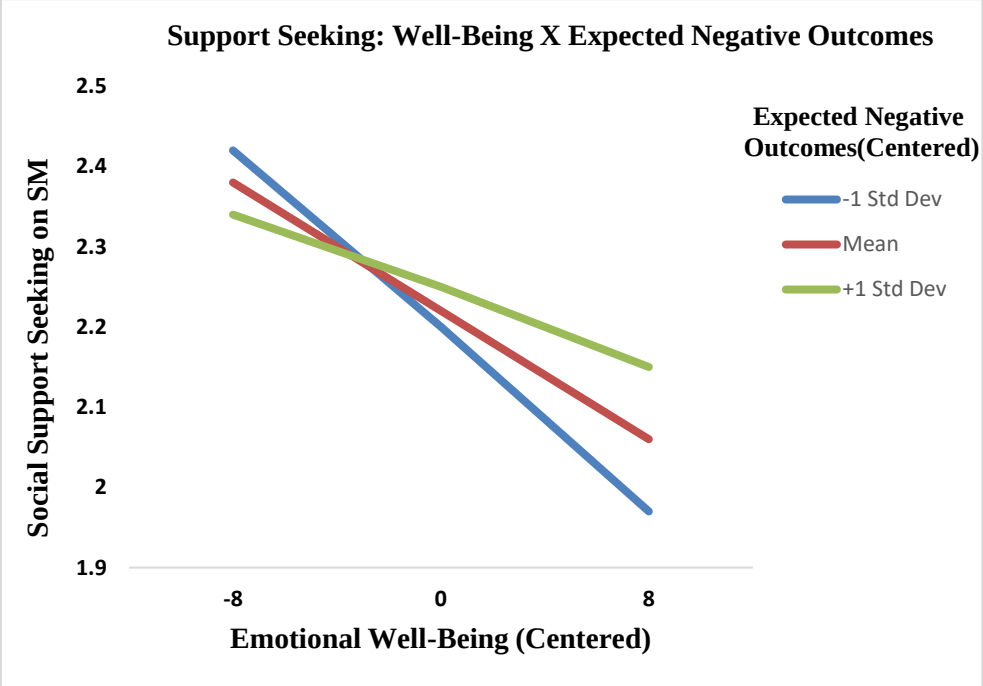

Figure 4.2 The Conditional Effect of Emotional Well-Being on Social Support Seeking on Social Media at Different Levels of Expected Negative Outcomes

4.8 The Moderating Effect of Stigma on the Influence of Emotional Well-Being

To address H13 and H14, which predicted that perceived public stigma and self-stigma would moderate the effect of emotional well-being on social media-based support seeking, PROCESS Model 16 (moderated mediation with two mediators) was run using 5,000 bootstrap samples. This tested the mediation model shown in Figure 4.1, with the addition of two moderators; the same control variables were included. Results demonstrated that neither interaction was significant, perceived public stigma: *c* = .000, *SE* = .004, *p* = .933, 95% CI [−.008, .009] and self-stigma: *c* = .003, *SE* = .004, *p* = .421, 95% CI [−.005, .011]. In other words, neither type of stigma moderated the influence of emotional well-being on social support seeking. Therefore, neither H13 nor H14 was supported. The Indices of Moderated Mediation

(IMM) also showed that the indirect effect of life stressors on social media-based support seeking through emotional well-being was not conditional on perceived public stigma, IMM = −.0002, *SE* = .003, 95% CI [−.006, .006], or self-stigma, IMM = −.002, *SE* = .002, 95% CI [−.005, .002].

Follow-up analyses. To explore possible reasons behind the unsupported predictions examined in the regression analysis (i.e., H7, H8, H9), this study also examined whether mental health condition interacted with several key study variables to predict social support seeking on social media. Mental health conditions, such as depression and anxiety, have been found to interact with perceived social support, subjective need for help, and stress levels to influence help-seeking behaviors (Kenny et al., 2016; Nagai, 2015; Zochil & Thorsteinsson, 2018). In addition, past research suggests stronger combined effects of mental health conditions and perceived stigma and expected negative outcomes (Griffiths, Christensen, & Jorm, 2008; Johnco & Rapee, 2018). Therefore, in the follow-up analyses, this study examined whether mental health condition moderated the influence of expected negative outcomes, perceived public stigma, or self-stigma on social support seeking on social media. However, none of these analyses was significant. In other words, mental health condition did not moderate the effect of expected negative outcomes or stigma on social media-based support seeking.

5 DISCUSSION

College students have been reporting very low levels of emotional well-being, and their mental health problems have been a growing public health concern especially in the last couple decades (ACHA, 2021; Pedrelli et al., 2015; Son et al., 2020). Moreover, COVID-19 pandemic has exacerbated this problem in the last two years due to social isolation, fear of infection, stress, job losses, difficulties with transitioning to online learning, and more (Ellis et al., 2020).

Research indicates that despite struggling with emotional challenges and worsening mental health, college students avoid seeking help from professionals (Goodwin et al., 2016). Yet, they tend to seek informal help from friends and family (Cho & Huang, 2017; McDermott et al., 2018) while favoring online support instead of traditional, in person support (Rickwood et al., 2015). Indeed, studies revealed that college students frequently use social media platforms/apps for various purposes including social support seeking (Zhang, 2017). However, little research has examined the factors that may lead college students to seek social support on social media platforms, and no research has been located that investigates the predictors of college students' mental health support seeking behavior on social media. Also, there has been a very limited use of theory to guide research on understanding mental health-related help seeking in online contexts (Pretorius et al., 2019). Grounded in social cognitive theory and labeling theory, this research sought to fill this gap by examining the factors that may be at play in the context of college students' social media-based support seeking behavior for mental health concerns. The major findings of the study are briefly summarized here. Then, findings of each analysis are discussed in detail in the following sections.

The first section of the study explored descriptive information of college students' social media use (i.e., Facebook, Twitter, Instagram, Snapchat, and TikTok), social media use for mental health support and perceptions of others' social media use for mental health support, as well as expected positive and negative outcomes of seeking social media-based support. Findings showed that Instagram was the platform/app used most often among college students, followed by Snapchat, TikTok, Twitter, and Facebook. While use of social media for mental health support was not frequent, participants reported seeing other people frequently use social media for mental health support. They reported using Instagram the most for mental health support, and

also reported Instagram as the platform/app where they see other people seek mental health support the most. In addition, results indicated that respondents expected greater positive outcomes of seeking social media-based support than negative outcomes.

The second section of the study investigated the predictors of social support seeking on social media. In a hierarchical regression analysis, a higher number of life stressors and lower emotional well-being were associated with greater social support seeking on social media. Furthermore, self-efficacy of help-seeking positively predicted social media-based support seeking. Expected positive outcomes of seeking social media-based support was a positive predictor of social support seeking on social media, but expected negative outcomes did not predict social support seeking. Unexpectedly, self-stigma was positively related to social media-based support seeking, yet perceived public stigma did not predict social support seeking.

In addition, the mediating role of emotional well-being in the influence of life stressors (including COVID-19 related stressors) on social media-based support seeking was investigated. The findings showed that life stressors predicted lower emotional well-being, and emotional well-being fully mediated the effect of life stressors on social media-based support seeking.

The moderating roles of self-efficacy, expected outcomes, and stigma in the influence of emotional well-being on social media-based support seeking were examined. The findings revealed that expected negative outcomes moderated the influence of emotional well-being on social media-based support seeking, but expected positive outcomes did not. Specifically, it was found that emotional well-being was more strongly associated with social support seeking when expected negative outcomes were lower. In addition, self-efficacy and stigma did not moderate the influence of emotional well-being on social media-based support seeking.

In all of the analyses, gender, personal experience with mental health issues, and overall social media use were controlled, since the results showed that these factors were significantly related to social support seeking on social media. Females and participants who were diagnosed with or treated for a mental health condition reported greater social support seeking on social media. Moreover, greater overall social media use was associated with greater social support seeking on social media.

The discussion chapter unfolds in seven sections. The first section reviews the findings from social media use for mental health support and expected outcomes of seeking social media-based support. The second section discusses the factors contributing to social support seeking on social media, including the mediating role of emotional well-being and moderating roles of self-efficacy, expected outcomes, and stigma. The third section presents the theoretical implications that emerged from this research while the fourth section lays out the practical implications this research provides. Finally, the chapter closes with study limitations, suggestions for future research, and conclusion.

5.1 Social Media Use for Mental Health and Expected Outcomes of Seeking Social Support

Social cognitive theory argues that people learn through direct or observational experiences and then form beliefs and expectations regarding outcomes their behaviors would produce (Bandura, 1986, 2004, 2009). Thus, this research first explored whether and how often participants use various social media platforms/apps for mental health support seeking, whether and how often they see other people use various social media platforms/apps for mental health support seeking, and what outcomes they expect from seeking social media-based support. Participants reported using social media (Facebook, Twitter, Instagram, Snapchat, and TikTok)

for mental health support with less frequency than they reported seeing other people use social media for mental health support. Given that a person usually follows many other users on social media platforms/apps, it is not surprising that they see others seek social support more often than they seek support themselves. This finding also suggests that people may learn through observing others' social support seeking behavior and responses/feedback they receive on social media, which is in line with social cognitive theory. However, it is possible that this finding reflects an understatement of participants' own mental health support seeking on social media or overstatement of their perceptions of other people's mental health support seeking, or both. This should be explored further in future research.

The study also found that participants expected greater positive outcomes than negative outcomes from seeking social support on social media. These results may have implications for college students' willingness to seek social media-based support for mental health. Through seeking social media-based mental health support directly and/or observing others' mental health support seeking behaviors as well as response/feedback they receive, college students may form outcome expectations. This in turn may influence their learning and decision to turn to social media for support. In addition, the finding that they expect more positive outcomes than negative outcomes of seeking social media-based support (e.g., beliefs concerning approval or disapproval a behavior may generate in one's relationships with others) (Bandura, 1986, 2004) may be interpreted considering that young people perceive online platforms as an overall safer source of support for sensitive problems like mental health issues (Rickwood et al., 2015). Previous research indeed showed that young people feel more understood and less judged in online platforms (Goodwin et al., 2016; Rickwood et al.,2015; Ryan et al., 2010). Thus, it makes sense

that college students reported expecting greater positive outcomes than negative outcomes of seeking social media-based support.

Furthermore, results indicated that participants who used TikTok the most for mental health support seeking expected significantly lower positive outcomes than the ones who used other platforms/apps (i.e., Facebook, Twitter, Instagram, and Snapchat) the most for seeking mental health support. Because no research has been located on TikTok-based social support seeking, this finding can be interpreted by turning to existing scant research examining TikTok. TikTok is an entertainment- and dance video-oriented platform/app where trendiness, novelty, and escapist addiction are the most common gratifications that TikTok users report deriving from its use (Scherr & Wang, 2021). Thus, people may not receive any response to their mental health-related social support seeking posts/messages or the responses they get may not be serious or helpful considering the fun nature and positive social norm of the platform. The study also found no significant differences for expected negative outcomes of seeking support among the participants who used the five platforms/apps for mental health support. These findings show that differences in various affordances and features of these five platforms/apps may impact the level of positive outcomes users expect from seeking mental health support on each specific platform/app, whereas they may not impact the level of negative outcome expectations. Also, these findings are based on the differences among participants who use each platform/app most often. Hence, it may be that people who use a certain platform/app the most for mental health support may have different personalities, perceptions, or expectations than others who use another platform/app the most for mental health support.

The study also revealed that Instagram was the platform/app used by the highest number of respondents (93.5%), followed by Snapchat (82.3%), TikTok (76.7%), Twitter (66.9%), and

Facebook (50.0%). Similarly, participants reported using Instagram the most for mental health support seeking, followed by Snapchat, Twitter, TikTok, and Facebook. They also reported seeing other people use Instagram the most for mental health support seeking, followed by Snapchat, TikTok, Twitter, and Facebook. These results are consistent with research suggesting that college students use Instagram and Snapchat the most (Alhabash & Ma, 2017) and that amount of Instagram use is related to frequency of using the app for seeking emotional as well as informational support (Pornsakulvanich, 2017). In addition, social media platforms/apps that mainly focus on image and video messages (e.g., Instagram and Snapchat) enable communication of nonverbal cues, which in turn facilitates self-expression as well as comprehension of others' emotions (Waddell, 2016). Social support can be sought both directly/indirectly and verbally/nonverbally (Buehler et al., 2019). In the context of support seeking for sensitive issues like mental health, it may be difficult to verbalize a need for social support. Therefore, the finding that college students use and see others use Instagram, a photo/video-based platform, the most for mental health support seeking makes sense. In other words, this finding implies that college students may be more willing to seek mental health support on social media platforms/apps that make it easier to ask or hint their need for social support through visual/nonverbal messages.

5.2 Factors Contributing to College Students' Social Support Seeking on Social Media

Drawing on social cognitive theory, this study focused on several factors that may influence college students' social media-based support seeking for mental health-related problems. Specifically, the study examined the predictive value of life stressors (including COVID-19 related stressors), emotional well-being, self-efficacy of help-seeking, expected positive and negative outcomes of seeking social media-based support, and perceived barriers

(i.e., perceived public stigma and self-stigma) in the context of social media-based mental health support seeking. In addition, the study investigated the moderating roles of the key study variables (i.e., self-efficacy, expected outcomes, and stigma) in the impact of emotional well-being on social media-based support seeking. The next four sections summarize and discuss the main findings of the study.

5.2.1 The Role of Life Stressors and Emotional Well-Being in Social Media-Based Support Seeking

Nationwide surveys and research studies demonstrated that college students have been struggling with various life stressors and reporting very low levels of emotional well-being (ACHA, 2021; Kroshus et al., 2021; Pedrelli et al., 2015). COVID-19 pandemic has worsened this issue because of fear of infection, stress, social isolation, job losses, challenges with online learning, and more (Ellis et al., 2020). Nevertheless, many college students do not seek professional help for their mental health struggles, and instead resort to seeking informal help from their online networks (Goodwin et al., 2016). Thus, this study examined the role that life stressors (including COVID-19 related ones) and emotional well-being play in college students' social media-based support seeking.

The students in this sample reported that on average 10 out 38 life stressors had occurred in their life in the past year. They also reported experiencing negative and positive emotions about equally on average in the last two weeks. Specifically, the mean for positive emotions was 19.41, whereas the mean for negative emotions was 16.46. Since the scores for positive/negative emotions could range from 6 to 30, students reported moderate levels of both positive and negative emotions. Overall, the difference between two scores (positive minus negative) was 2.95, indicating a slightly positive affect balance (i.e., emotional well-being). This level of affect

balance is lower than the levels found in earlier studies on college students, such as 6.69 found by Diener et al. (2010). Hence, the results in the current study are consistent with reviewed literature suggesting that college students have been dealing with various life stressors (including COVID-19 related stressors) and reporting worsening emotional well-being in the last decade (ACHA, 2021; Pedrelli et al., 2015; Son et al., 2020).

The study findings demonstrated that a higher number of life stressors and lower emotional well-being were both associated with greater social media-based support seeking. This is in line with past studies that revealed a positive relationship between life stressors and social support seeking on Facebook (Bazarova et al., 2017) and a negative relationship between affective well-being and online social support seeking (Rickwood et al., 2015; Zhang, 2017). Moreover, emotional well-being fully mediated the relationship between life stressors and social support seeking on social media. These findings are consistent with previous research. Specifically, in the literature on mental health-related help seeking, life stressors (e.g., school, friends, significant other, family, financial etc. related) have been found as possible reasons behind college student's worsening mental health as well as driving factors behind various help-seeking and coping behaviors (Frison & Eggermont, 2015; Zimmer-Gembeck & Skinner 2011). Studies have also demonstrated that affective well-being and psychological distress were associated with help-seeking behaviors (Goodwin et al., 2016; Kenny et al., 2016; Nagai, 2015; Zochil & Thorsteinsson, 2018). Thus, college students' life challenges may contribute to their worsening emotional well-being/mental health, and this in turn might lead them to seek informal help (Goodwin et al., 2016; Kenny et al., 2016; Kroshus et al., 2021; Pedrelli et al., 2015; Son et al., 2020). Unsurprisingly, the current study indicated that more life stressors are associated with lower emotional well-being, which in turn promote greater social media-based support seeking.

These results also address a gap identified by Lisitsa et al. (2020). The researchers suggested that studies should examine how amplified life stressors and worsened emotional state during the pandemic may influence social media-based support seeking. Findings in this study showed that more life stressors and worse emotional well-being indeed prompted greater social support seeking. Therefore, results imply that college students may be willing to seek social support on social media when they are emotionally low due to increasing life stressors at times of crises.

5.2.2 The Role of Self-Efficacy in Social Media-Based Support Seeking

According to social cognitive theory, self-efficacy is pivotal for performance of various behaviors (Bandura, 1986). It is especially relevant in the context of health behaviors because one's confidence and beliefs concerning their ability to practice a health-related behavior, such as exercise and physical activity, may be decisive in their performance of the behavior (Bandura, 1986, 2004). Therefore, this study investigated the influence of self-efficacy of help-seeking on social support seeking on social media.

The results revealed that higher self-efficacy in performing help-seeking behaviors predicted greater social support seeking on social media. This is in line with social cognitive theory, which argues that a person's ability to exercise control over their behavior is essential to performance of health-related behaviors (Bandura 1986; 2004). Indeed, earlier studies found that self-efficacy beliefs are associated with coping behaviors, stress management, and problem solving (Jackson et al., 2007; Li et al., 2018). Given that performance of stress management and coping behaviors are closely related to social support seeking behaviors, the finding related to the positive predictive value of self-efficacy on social media-based support seeking is consistent with past research. This implies that college students who are more confident in their ability to

use their resources and seek help in times of need would be more willing to seek social support on social media.

On the other hand, results showed no evidence that self-efficacy interacts with emotional well-being to influence social media-based support seeking. This finding is surprising given that the combined effects of one's confidence in their capabilities and resources to cope/seek help and their emotional well-being should be stronger than the effect of emotional well-being alone (Bandura 1997, Iannotti et al., 2006). Contrary to what literature suggests, however, this study showed that college students' level of confidence in their ability to exercise control over their social support seeking behavior did not strengthen the relationship between their emotional well-being and social media-based support seeking.

5.2.3 The Role of Expected Outcomes in Social Media-Based Support Seeking

Literature on social cognitive theory in health contexts suggests that outcome expectations are important determinants of performance of various health behaviors (Bandura 1986; 2004; Iannotti et al., 2006). People form beliefs and anticipations about benefits and costs of practicing a health-related behavior, which in turn may impact performance of the behavior (Bandura 1986; 2004). Research has indeed found that positive and negative outcome expectations affect health behaviors, such as diabetes self-management and nutrition and exercise behavior (Iannotti et al., 2006; Stacey et al., 2015). Hence, the current study examined the influence of expected positive and negative outcomes on social support seeking.

Findings showed that expected positive outcomes of support seeking was a significant predictor of social support seeking on social media. Specifically, expecting more positive outcomes was associated with greater social support seeking on social media, which is consistent with past research. Previous studies on mental health-related help-seeking behaviors have

specifically addressed expected social outcomes (i.e., beliefs regarding approval or disapproval a behavior may evoke in a person's relationship with others) as a significant factor, since they are closely related to one's beliefs about whether others will accept or reject them when they seek help (DeLoveh & Cattaneo, 2017; Mulfinger et al., 2019). Therefore, it is unsurprising that college students are willing to seek social support on social media more when they expect positive outcomes of seeking social media-based support. On the other hand, the results revealed no evidence of a moderating role of expected positive outcomes in the effect of emotional well-being on social media-based support seeking. This implies that lower emotional well-being promotes greater social media-based support seeking, regardless of level of expected positive outcomes.

Contrary to the study prediction, results showed no evidence of the direct predictive value of expected negative outcomes of seeking social media-based support. This is surprising given that past research confirmed the impact of negative outcome expectations on health behavior, such as diabetes self-management and nutrition behavior (Anderson et al., 2007; Iannotti et al., 2006). On the other hand, there was evidence of a moderating role of expected negative outcomes. It was found that impact of emotional well-being on social media-based support seeking was stronger for participants who had lower expected negative outcomes. This finding can be interpreted as people with lower expected negative outcomes may be more comfortable opening up and seeking social support on social media when they feel low. This is also in line with past research suggesting that the influence of distress and emotional well-being on help-seeking was conditional on negative outcome expectations related to seeking help for mental health problems (Vogel, Wester, Wei, & Boysen, 2005). It makes sense because worries and concerns about anticipated negative feedback from others are inherently unhealthy feelings and

may act together with emotional well-being to influence support seeking decision for sensitive issues like mental health struggles. Thus, the finding in this study is consistent with previous research and implies that college students with lower emotional well-being tend to seek social media-based support more when they expect lower negative outcomes of seeking support.

5.2.4 The Role of Stigma in Social Media-Based Support Seeking

Applying social cognitive theory in the context of health behaviors, Bandura (2004) argued that another core determinant of performance of a health behavior is perceived barriers. In the context of mental health behaviors, this closely ties to the labeling theory, which revolves around the notion that stigma of mental illness is a barrier to performance of help-seeking behaviors (Link et al., 1989). This is because when people fear being rejected and stigmatized by others, they hesitate to seek help. Hence, the study also tested the role of stigma in social media-based support seeking. Contrary to predictions, the study results indicated that perceived public stigma was not a significant predictor of social support seeking on social media, yet self-stigma positively predicted social media-based support seeking. In other words, higher self-stigma was associated with greater social support seeking on social media. Also, as perceiving public stigma and experiencing self-stigma are inherently negative and unhealthy feelings, this study expected that both perceived public stigma and self-stigma would interact with emotional well-being to influence social support seeking on social media. However, there was no evidence that perceived public stigma or self-stigma moderated the effect of emotional well-being on social media-based support seeking.

The findings related to stigma – that neither type of stigma appeared to serve as a barrier to social support seeking on social media – can be interpreted considering past research suggesting that greater anonymity afforded by earlier forms of online communities leads users to

be less concerned about stigma and prefer online help-seeking (Best et al., 2014; Rains & Young, 2009; Wright, 2002). However, it is still surprising given that today's heavily mobile world full of social media platforms/apps make complete anonymity almost impossible (Chen et al., 2019; Fox & McEwan, 2020). As discussed in the literature review, some of these technologies make an individual's social interactions visible to many other users, thus leading to caution in self-expression and disclosure (Zhang, 2017). Nonetheless, the findings can be interpreted considering young people feel more secure seeking help in online environment (Ryan et al., 2010; Wright & Rains, 2013), which may include new social media platforms/apps. Hence, college students may resort more to social support on social media platforms/apps than to offline social support from friends and family. Indeed, past research suggests that they may be feeling safer and less judged talking about their sensitive, stigmatized problems like mental health issues and taboo topics online (Birnholtz, Merola, & Paul, 2015; Goodwin al., 2016; Moreno et al., 2011; Rickwood et al., 2015; Ryan et al., 2010). This is also consistent with the study's initial findings that participants expected more positive outcomes than negative outcomes of seeking social support on social media. Therefore, college students may feel secure sharing and seeking support for their mental health issues on social media without worrying about stigma, social norms, or negative feedback.

However, the positive predictive value of self-stigma is very surprising, since no past research was located that suggests self-stigma is associated with greater help-seeking behaviors. Therefore, further research is needed to reconfirm this finding. This unexpected result may be interpreted considering the self-stigma measure used in this study. The measure asked participants to what extent they agree with certain negative beliefs and attitudes they would have about themselves if they were to experience mental illness in the next year. It might be the case

that people with higher self-stigma may be more likely to seek social support on social media as a preventive care to avoid experiencing those negative attitudes and beliefs associated with developing a mental illness in the future. However, this is just a speculation and needs to be examined in future research studies. It should also be noted that this unexpected finding might be due to causality issue. Because this study conducted survey research, it cannot be known whether people with higher self-stigma indeed sought more social media-based support or whether seeking social media-based support caused feeling more ashamed (i.e., experiencing more self-stigma).

5.3 Theoretical Implications

This study is an initial empirical attempt to apply social cognitive theory (Bandura, 1986, 2004) and stigma and labeling theory (Link et al. 1989) to examine the predictors of social support seeking on social media for mental health. According to social cognitive theory, self-efficacy beliefs, outcome expectations, and perceived barriers are the core determinants of performance of health behaviors (Bandura 1986; 2004). In the context of mental health-related behaviors, research has shown that lower confidence in one's ability to cope with problems, expecting negative outcomes, such as facing rejection or being stigmatized by others, as well as perceiving public stigma and experiencing self-stigma are significant barriers to help-seeking (Clement et al., 2015; DeLoveh & Cattaneo, 2017; Seamark & Gabriel, 2018). Indeed, labeling theory also suggests that people become reluctant to seek help when they believe they may be stigmatized by others (Link et al., 1989). Therefore, the main theoretical contribution of this study was unraveling the role that self-efficacy of help-seeking, expected outcomes of social media-based support seeking, and stigma play in the context of social support seeking on social media. The results revealed several important findings with theoretical implications.

First, in the descriptive analyses, it was found that college students use social media for mental health support with less frequency than how often they see other people's social media use for mental health support. They also reported expecting more positive outcomes than negative outcomes from seeking social support on social media. Social cognitive theory argues that much social learning takes place when people observe others' performances of various behaviors and outcomes associated with those behaviors (Bandura 1986). Thus, the descriptive findings imply that college students might learn from observing other users' social support seeking on social media as well as feedback they receive. Specifically, they may learn that seeking mental health support on social media might result in more positive responses/feedback than negative feedback. This in turn may help them form positive beliefs and expectations related to outcomes they might face when they seek social media-based support themselves, and in turn influence their support seeking decision. Yet, this is just a speculation and warrants further investigation by future research studies.

The main contribution of this study was revealing the key contributors to social media-based support seeking (i.e., life stressors, emotional well-being, self-efficacy of help-seeking, expected outcomes, and stigma). First, the study discovered that higher number of life stressors and lower emotional well-being prompted greater social media-based support seeking, and emotional well-being mediated the influence of life stressors on social support seeking. This contributes to research on mental health behavior and social media. Specifically, as reviewed earlier, literature on mental health and offline help-seeking found that higher stress and lower psychological well-being led to reduced help-seeking (Kenny et al., 2016; Nagai, 2015; Zochil & Thorsteinsson, 2018), whereas research examining this relationship in online contexts revealed that lower well-being led to increased help-seeking (Rickwood et al., 2015; Ryan et al., 2010).

The current study adds evidence to the literature that more stressors and lower emotional well-being predict greater support seeking on social media.

Second, the study extends social cognitive theory by providing evidence that self-efficacy of help-seeking has a positive impact on the performance of support seeking behaviors on social media platforms/apps. In other words, if college students had high self-efficacy of help-seeking, they were more likely to seek social support on social media for mental health. From the perspective of social cognitive theory, this finding means that increased confidence in one's capabilities and resources related to performance of help-seeking behaviors as well as stronger belief in their capacity to execute help-seeking translate into greater social support seeking on social media (Bandura, 1986). This implies that if college students could have more confidence and belief in their ability to exercise control over their help-seeking behaviors, they would be more willing to seek social media-based support for their mental health problems.

Third, another theoretical contribution of this study relates to confirming the predictive value of outcome expectations in the context of health behaviors (Bandura 1986; 2004). The study showed that expecting more positive outcomes led to greater social support seeking on social media. This result is in line with past research, which revealed that expected positive outcomes of performing a health-related behavior is associated with performance of that behavior (Iannotti et al., 2006). Also, it was found that lower expected negative outcomes of seeking social support combined with lower emotional well-being prompted more social media-based support seeking. This finding adds to prior evidence on the stronger combined effects of outcome expectations with psychological well-being and self-efficacy beliefs on health-related behavior (Iannotti et al., 2006; Johnco & Rapee, 2018). Hence, both results add to the literature on social cognitive theory and health behavior by providing evidence that expected outcomes of

social support seeking influence social media-based support seeking for mental health. This implies that when college students expect other people to respond more positively and accepting to their social support seeking on social media and believe that they will feel better after seeking support, they would be more inclined to perform mental health support seeking behavior on social media. These findings also extend the labeling theory by demonstrating that when college students with lower emotional well-being expect less negative outcomes, such as being rejected or labeled/stigmatized by others on social media, they tend to seek greater social media-based support. This further emphasizes the important role of expecting more positive and less negative outcomes in performance of mental health support seeking behaviors.

Lastly, the current study expected that public stigma and self-stigma would negatively impact social media-based support seeking for mental health. As discussed in the literature review, both social cognitive theory and labeling theory suggest that stigma related to mental health problems is a barrier to help-seeking behaviors (Bandura, 1986, 2004; Link et al., 1989). However, the study findings showed that neither perceived public stigma nor self-stigma appeared to function as barriers to social support seeking on social media. Contrary to what was expected, perceived public stigma was unrelated to social support seeking on social media, and higher self-stigma prompted greater social support seeking. These results are not consistent with existing research (e.g., Mulfinger et al., 2019), which demonstrated that perceiving public stigma and experiencing self-stigma are significant barriers to help-seeking for mental health issues and lead to secrecy as well as less willingness to seek help. However, they are in line with research suggesting that young people prefer seeking help on digital platforms, as they report feeling more comfortable/less ashamed (i.e., less self-stigma) and less judged (i.e., less public stigma) for discussing their stigmatized problems and taboo topics in an online environment (Goodwin et

al., 2016; Rickwood et al., 2015; Ryan et al., 2010). From a theoretical perspective, the fact that neither type of stigma functioned as a barrier to social support seeking suggests that social support for mental health might be sought in the context of social media in ways that facilitate avoiding stigmatizing labels. Also, there may be other factors at play in the context of social media that impact the role of stigma and labeling. This should be explored further in future research.

Overall, the study findings reveal that social cognitive theory is a useful theoretical framework to understand predictors of social media-based support seeking for mental health. The results demonstrate that self-efficacy and outcome expectations, which are the two key components of social cognitive theory in health contexts as suggested by Bandura (2004), are useful in understanding college students' social support seeking behavior on social media. However, some unexpected findings, such as the unrelatedness of public stigma and positive predictive value of self-stigma in social media-based support seeking, have raised questions that require further exploration. These findings showed that contrary to what labeling theory suggests, stigma may not function as a barrier to social support seeking on social media. Yet, it is also possible that mental health support may be sought in the context of social media in ways that enable avoiding stigmatizing labels. Hence, the role of stigma as a barrier within this context should be further investigated.

5.4 Practical Implications

As college students report more and more about their struggles with mental health problems, the issue has become a growing public health concern (Pedrelli et al., 2015; Son et al., 2020). Also, college students increasingly engage with ever expanding social media platforms and apps to fulfill various needs, including social support exchange (Alhabash & ma, 2017;

Meng et al., 2017). This study revealed that more life stressors and lower emotional well-being lead college students to seek social media-based support for mental health. Research suggests that online interventions, including social media-based ones, as well as peer-to-peer interactions on social networks and online communities might be an effective way to provide mental health support to college students who are otherwise reluctant to seek or lack access to professional help (Naslund et al., 2016; Ryan et al., 2010). Thus, the current study offers practical insights in developing social media-based, peer-to-peer interventions that promote mental health related-help seeking behaviors among college students.

The results indicated that college students seek mental health support on Instagram and Snapchat the most, both of which are image and video-based social media platforms/apps. Existing research suggests that image and video-based messages enable social presence, immediacy, and a close, real interpersonal experience (Pittman & Reich, 2016). It has been argued that pictures and videos communicate emotional states and struggles that are hard to verbalize better than texts (Bogolyubova et al., 2018). Therefore, affordance of visual signifiers on Instagram and Snapchat may facilitate expression of psychological distress or other stigmatized concerns. This explains the finding that college students seek mental health support on Instagram and Snapchat the most, and implies that developers of social media-based interventions for college students' mental health should choose venues that afford not only verbal but also nonverbal mental health support seeking. Indeed, recent research suggests that choosing a social media platform/app that provides the appropriate affordances is a critical task that designers of social media interventions face (Moreno & D'Angelo, 2019).

Social cognitive theory has been a useful theoretical framework in designing interventions for various health behaviors, such as physical activity and nutrition behaviors

(Stacey et al., 2015; Williams & French, 2011). The results of this study demonstrate that it can also be beneficial in developing peer-to-peer, social media-based interventions for mental health support seeking behavior. First, the findings indicated that self-efficacy of help-seeking is a significant positive predictor of college students' social media-based support seeking behavior. This implies that developers of social media-based mental health support seeking interventions should use strategies and tools to increase self-efficacy of help-seeking (e.g., tools that facilitate monitoring and regulating support seeking behavior, similar to tools used in social media-based physical activity interventions). Research indeed suggests that including intervention features such as tools that encourage self-monitoring aid in preventing and treating obesity (Hutchesson et al., 2015). This finding also imply that intervention designers should choose social media platforms/apps that grant users full autonomy over their support seeking journeys through affordances such as information and interaction control, accessibility, as well as verbal and nonverbal messaging. Therefore, incorporating relevant tools into the design of social media interventions and choosing the platform/app with appropriate affordances may increase self-efficacy of help-seeking by helping users keep track of their support seeking actions and granting control to them over their support seeking journeys. This in turn may promote regular practice of social media-based help-seeking behaviors.

The study explored the influence of outcome expectations on college students' social media-based support seeking behavior (Bandura, 1986, 2004). Findings revealed that higher expected positive outcomes and lower expected negative outcomes combined with lower emotional well-being led college students to seek more social support on social media. Social media platforms have various features/affordances that allow users to approve or disapprove a message shared by another user through likes, comments, and emojis (Fox & McEwan, 2020).

The fact that people's anticipation of more positive response/feedback from other users make them more likely to seek social media-based support suggests that intervention designers should choose a social media platform/app where social norm is more about encouragement and support of others than hostility. Also, the fact that lower emotional well-being was more strongly related to greater social support seeking for people with lower expected negative outcomes implies that college students with lower well-being might be more sensitive/vulnerable to negative feedback from others on social media. Thus, practitioners should design interventions on social media platforms where features allowing dislikes or offensive emojis are not embedded or can be disabled. This is especially relevant considering recent controversy over the way Facebook promoted posts with reaction emojis. Facebook's ranking algorithm that determines what users see in their home pages/news feeds give more value to reaction emojis, including negative ones like 'angry', than 'likes', which may result in more negative emotion-oriented content being pushed to users (Merrill & Oremus, 2021). Therefore, intervention designers should also consider potential risks of peer-to-peer interactions, such as hostile response from others, and incorporate tools to discourage negative or offensive responses and facilitate mutual support and positive feedback among peers.

Despite prior evidence that stigma functions as a barrier to college students' help-seeking behaviors (Jennings et al., 2015; Laidlaw et al., 2016; Seamark & Gabriel, 2018), the findings revealed that neither type of stigma was a barrier to social support seeking on social media. As discussed previously, earlier research suggested that young people feel more in control of the information they share and less concerned about stigma in online platforms (Birnholtz, Merola, & Paul, 2015; Goodwin al., 2016; Moreno et al., 2011; Rickwood et al., 2015; Ryan et al., 2010; Wright & Rains, 2013), which may include social media platforms/apps. Therefore, practitioners

should select social media platforms/apps that grant greater information and privacy control to users and focus on enhancing features that disable offensive/negative feedback. This can help motivate college students who perceive public stigma and experience self-stigma to seek more mental health support on social media (Mulfinger et al., 2019; Rickwood et al., 2015). Hence, developers of social media-based interventions should prioritize creating a peer-to-peer environment that is safe, welcoming/non-judgmental, and supportive. This in turn may increase college students' participation in mental health support interventions on social media and improve their mental health.

5.5 Limitations

The current study identified the factors that may influence college students' social support seeking behavior on social media for mental health. However, the study also has some limitations that need to be acknowledged.

First, it is impossible to make statements of causality because the current study conducted survey research. Using cross-sectional correlational data comes with the drawback of not being able to identify the time ordering and whether a variable is the cause of another variable. For instance, the study found that higher self-efficacy of help-seeking was associated with greater social support seeking on social media. However, it cannot be known whether people with higher self-efficacy of help-seeking seek more support on social media or whether people who seek support on social media more often develop self-efficacy of help-seeking as a result of their experience. As another example, higher self-stigma was found to be associated with more social media-based support seeking. Yet, it cannot be known whether people with higher self-stigma indeed sought more social media-based support or whether seeking social media-based support caused feeling more ashamed (i.e., experiencing more self-stigma).

Second, the sample used in this study was not representative of all college students. Instead of a random sample from the population of interest, a convenience sample was used. Moreover, all study participants attended the same university (Georgia State University). To determine whether the findings from this study can be generalized more broadly, future research needs to examine a variety of other student samples. Although it is important to acknowledge that the results cannot be generalized, the value of studying GSU students should also be noted. Georgia State University is among the most diverse colleges in the U.S., according to the U.S. News & World Report's diversity index (U.S. News & World Report, 2021). At GSU, fully 41% of the students are African-American, 13% are Hispanic/Latinx, 15% are Asian, 21% are White, and 6% are two or more races (National Center for Education Statistics, 2021). GSU is also among the U.S. colleges that enroll the greatest number of low-income students, according to the Brookings Institution's research on social mobility (Georgia State University, 2017). Thus, conducting this study at GSU provided valuable insight about students who are often overlooked in research. Another point related to generalizability of findings is that the current study was conducted during the Covid-19 pandemic. Although social support seeking on social media during the pandemic was the focus of this study, the findings regarding predictors of social support seeking may not be applicable in situations/contexts when there is no pandemic. These issues limit the generalizability of findings.

Third, survey research depends on participants' self-reports of recalled behaviors or answers to topics which they may be inclined to give rather socially acceptable responses. Specifically, this study examined college students' social support seeking behavior on social media for mental health. Mental health problems are highly stigmatized and sensitive; therefore, participants' answers may not reflect their actual support seeking behavior on social media. For

example, respondents in the current study reported seeing other people seek mental health support on social media more often than their own mental health support seeking. Another limitation of self-reporting questionnaires is that participants may be biased, thus understating or overstating their answers (Leroux, Rizzo, & Sickles, 2012). It is possible that in this study, respondents may have understated their own social media-based support seeking behavior while overstating others' social media-based support seeking behaviors. Moreover, rating scales used in this study could not capture the meaning and variety of ways that students sought social support or the responses they received. However, self-reports were an appropriate choice for this study because the main goal was to identify the predictors of college students' own social media-based support seeking behavior. Also, the study focused on real world social media-based support seeking behavior and included five different social media platforms/apps to increase the applicability of findings to social media in general. These aspects of the study increased its ecological validity.

An additional limitation is related to the measures of self-efficacy in performing help-seeking behaviors and social support seeking on social media. The self-efficacy measure was composed of items that asked about respondents' confidence in their ability to use coping skills to handle their problems and manage their feelings such as talking to friends and family. Similarly, the measure of social support seeking on social media contained items that focus on seeking support for worries, feelings, and problems. However, the items in neither scale were specifically addressing mental illness or mental health conditions. Further, the self-efficacy of help-seeking measure did not specify self-efficacy of help-seeking on social media or differentiate among support seeking on different platforms/apps. Because constantly proliferating social media platforms/apps provide a variety of features and affordances that grant people the

ability to exercise control over their use to different degrees (Fox & McEwan, 2020), people's self-efficacy of help-seeking on each platform/app may be different. This may be a reason why the current study was unable to find a moderating effect of self-efficacy in the influence of emotional well-being on social media-based support seeking.

Lastly, the survey question on participants perceptions of other people's social media-based support seeking for mental health could not capture the range of ways as well as circumstances in which they see other users' support seeking posts. This could make an additional contribution to understanding of modeling effects in people's own social support seeking behavior on social media. Hence, more detailed presentation and examination of this question would be useful.

5.6 Future Research

Based on the findings of this study as well as limitations, several future research suggestions can be made. The first part of the study explored social media use for mental health support, perceptions of other people's social media use for mental health support, and expected positive and negative outcomes of seeking social support. However, this study could not capture the range of ways as well as circumstances in which participants shared their support seeking posts or saw other users' support seeking posts and responses/feedback to those posts. Future research should delve into these questions and also address how support seeking behaviors modeled by other users may influence one's own social media-based support seeking behavior. For example, a qualitative study could examine college students' direct experience in social media use for mental health support seeking, responses they receive from others, and their perceptions of others' social media use for mental health support.

In addition to the descriptive findings of the current study, future research should explore whether self-efficacy of help-seeking on social media changes depending on which social platform/app is used. As mentioned previously, since social media platforms/apps offer different features and affordances that grant control over their use to varying degrees (Fox & McEwan, 2020), self-efficacy of help-seeking for mental illness on each platform/app may be different. A study that specifically investigates the relationship between self-efficacy of help-seeking on different social media platforms and social media-based support seeking behavior may be useful in better understanding the influence of self-efficacy.

Social support seeking on popular platforms/apps Instagram and Snapchat should also be further explored. As discussed previously, Instagram and Snapchat are photo- and video-based platforms that afford visual signifiers facilitating expression of emotional problems and psychological distress (Bogolyubova et al., 2018; Waddell, 2016). This might enable users to hint about their struggles or stigmatized concerns, such as mental health problems, through nonverbal/visual posts and seek indirect social support. Thus, Instagram- and Snapchat-based mental health support seeking should be studied via both qualitative and quantitative research as well as content analysis of posts.

Future research should examine changes in social media-based support seeking behavior for mental health problems over time and provide insight into causal relationships among variables. It may also be useful to study the influence of past social media-based support seeking experience on present and future social support seeking behavior on social media. Existing research showed that positive past experiences with formal help-seeking facilitates college students' help-seeking behavior (Gulliver et al., 2010; Velasco et al., 2020). Therefore, whether

positive and/or negative experiences with previous social media-based support seeking encourage present and future support seeking might be an important question to examine.

Research should also explore whether social media-based support seeking may differ for different kinds of mental health problems. For example, some of the mental health conditions, such as schizophrenia or personality disorder, may be more stigmatized than other, more common mental disorders (e.g., depression, anxiety). This in turn may impact whether individuals with more stigmatized mental disorders seek more or less social media-based support and whether their support seeking behaviors differ based on which social media platform/app they use.

The current study provided interesting insights on how stigma may influence social media-based support seeking. Specifically, the finding that experiencing higher self-stigma was associated with greater social media-based support seeking warrants at least two important questions to be addressed through future research. First, research should explore whether the surprising positive relationship between self-stigma and social support seeking on social media can be reconfirmed, and if so, whether it changes depending on which platform/app is used. This could prove useful in understanding whether greater self-stigma leads to more support seeking only on certain platforms or across the board. Second, future research should also investigate whether higher self-stigma causes more social media-based support seeking or whether seeking more support on social media leads to experiencing higher self-stigma. This is critical to understand because it can indicate whether social media-based support seeking is helpful to people struggling with mental health problems or not.

5.7 Conclusion

This research examined college students' social media-based support seeking for mental health by applying social cognitive theory (Bandura 1986; 2004) as its theoretical ground. Labeling theory (Link et al., 1989) was also used to support social cognitive theory. The present study investigated descriptive information about social media use for mental health support as well as the predictors of college students' social support seeking on social media.

The key contribution of the current study involves the use of social cognitive theory in the context of social media-based support seeking for mental health. This research confirmed the predictive value of self-efficacy and outcome expectations in understanding health behavior. Specifically, the study showed that higher confidence in one's ability to perform support seeking behavior as well as higher expectations of positive outcomes are associated with greater social media-based support seeking (Bandura, 1986, 2004). The study also revealed that emotional well-being mediated the relationship between life stressors and social support seeking on social media. Specifically, more life stressors led to lower emotional well-being, which in turn promoted greater social media-based support seeking. In addition, this study demonstrated that lower emotional well-being promoted greater social support seeking on social media among students with lower expected negative outcomes. However, neither perceived public stigma nor self-stigma was found to be a barrier to social media-based support seeking. Moreover, the impact of self-stigma was contrary to what was expected based on past studies that suggest a negative relationship between self-stigma and mental health-related help-seeking behaviors (Clement et al., 2015; Seamark & Gabriel, 2018). Instead, the current study finding (i.e., self-stigma positively predicted social media-based support seeking) is consistent with research arguing that self-stigma may lead young people to seek online help due to feeling less

embarrassed and safer on social media when discussing highly stigmatized issues like mental health-related struggles (Goodwin et al., 2016; Rickwood et al., 2015; Ryan et al., 2010).

Based on the findings, the current study concludes that researchers and practitioners should attend to college students' use of social media for seeking social support as a remedy for their increasingly concerning mental health problems. It is essential and urgent to understand how college students seek mental health support on ever increasing social media platforms/apps, what leads them to social media for help and what are the key factors in the influence process, as well as what are the most useful and effective ways to develop social media interventions to address this growing public health concern.

REFERENCES

Abdullah, T., & Brown, T. L. (2011). Mental illness stigma and ethnocultural beliefs, values, and norms: An integrative review. *Clinical Psychology Review, 31,* 934-948.

Alhabash, S., & Ma, M. (2017). A tale of four platforms: Motivations and uses of Facebook, Twitter, Instagram, and Snapchat among college students?. *Social Media+ Society, 3*(1), 1-13.

Ali, K., Farrer, L., Fassnacht, D. B., Gulliver, A., Bauer, S., & Griffiths, K. M. (2016). Perceived barriers and facilitators towards help-seeking for eating disorders: A systematic review. *International Journal of Eating Disorders, 50*(1), 9-21.

Alsubaie, M. M., Stain, H. J., Webster, L. A., & Wadman, R. (2019). The role of sources of social support on depression and quality of life for university students. *International Journal of Adolescence and Youth, 24*(4), 484-496.

American College Health Association (2021). *American College Health Association-National College Health Assessment III: Reference Group Data Report, Spring 2021.* Silver Spring, MD: American College Health Association.

Andalibi, N., Haimson, O. L., De Choudhury, M., & Forte, A. (2016, May). Understanding social media disclosures of sexual abuse through the lenses of support seeking and anonymity. In *Proceedings of the 2016 CHI conference on human factors in computing systems* (pp. 3906-3918). New York, NY: ACM, Inc. https://doi.org/10.1145/2858036.2858096

Anderson, E. S., Winett, R. A., & Wojcik, J. R. (2007). Self-regulation, self-efficacy, outcome expectations, and social support: Social cognitive theory and nutrition behavior. *Annals of Behavioral Medicine, 34*(3), 304-312.

Anderson-Bill, E. S., Winett, R. A., & Wojcik, J. R. (2011). Social cognitive determinants of nutrition and physical activity among web-health users enrolling in an online intervention: The influence of social support, self-efficacy, outcome expectations, and self-regulation. *Journal of Medical Internet Research, 13*(1), e28.

Ansara, D. L., & Hindin, M. J. (2010). Formal and informal help-seeking associated with women's and men's experiences of intimate partner violence in Canada. *Social Science & Medicine, 70*(7), 1011-1018.

Apolinário-Hagen, J., Trachsel, D. A., Anhorn, A., Holsten, B., Werner, V., & Krebs, S. (2016). Exploring individual differences in online and face-to-face help-seeking intentions in case of impending mental health problems: The role of adult attachment, perceived social support, psychological distress and self-stigma. *Journal of Health and Social Sciences, 1*(3), 223-240.

Arizona State University (n.d.). *College Student's Stressful Event Checklist*. Retrieved from https://students.asu.edu/files/StressChecklist.pdf

Arseniev-Koehler, A., Lee, H., McCormick, T., & Moreno, M. A. (2016). # Proana: Pro-eating disorder socialization on Twitter. *Journal of Adolescent Health, 58*(6), 659-664.

Attai, D. J., Cowher, M. S., Al-Hamadani, M., Schoger, J. M., Staley, A. C., & Landercasper, J. (2015). Twitter social media is an effective tool for breast cancer patient education and support: Patient-reported outcomes by survey. *Journal of Medical Internet Research, 17*(7), e188-e195.

Auerbach, R. P., Alonso, J., Axinn, W. G., Cuijpers, P., Ebert, D. D., Green, J. G., ... & Nock, M. K. (2016). Mental disorders among college students in the World Health Organization world mental health surveys. *Psychological Medicine, 46*(14), 2955-2970.

Auerbach, R. P., Bigda-Peyton, J. S., Eberhart, N. K., Webb, C. A., & Ho, M. H. R. (2011). Conceptualizing the prospective relationship between social support, stress, and depressive symptoms among adolescents. *Journal of Abnormal Child Psychology, 39*(4), 475-487.

Awang, M. M., Kutty, F. M., & Ahmad, A. R. (2014). Perceived social support and well-being: First-year student experience in university. *International Education Studies, 7*(13), 261-270.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Upper Saddle River, NJ: Prentice Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: WH Freeman and Company.

Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology and Health, 13*(4), 623-649.

Bandura, A. (2004). Health promotion by social cognitive means. *Health Education & Behavior, 31*(2), 143-164.

Bandura, A. (2009). Social cognitive theory of mass communication. In J. Bryant & M.B. Oliver (Eds.), *Media effects: Advances in theory and research* (2nd ed., pp. 94-124). Mahwah, NJ: Erlbaum.

Barrera, M. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology, 14*(4), 413-445.

Basch, C. H., Hillyer, G. C., & Jaime, C. (2020). COVID-19 on TikTok: Harnessing an emerging social media platform to convey important public health messages. *International Journal of Adolescent Medicine And Health.* https://doi.org/10.1515/ijamh-2020-0111

Bayer, J. B., Ellison, N. B., Schoenebeck, S. Y., & Falk, E. B. (2016). Sharing the small moments: ephemeral social interaction on Snapchat. *Information, Communication & Society, 19*(7), 956-977.

Bazarova, N. N., Choi, Y. H., Whitlock, J., Cosley, D., & Sosik, V. (2017). Psychological distress and emotional expression on Facebook. *Cyberpsychology, Behavior, and Social Networking, 20*(3), 157-163.

Bender, M., van Osch, Y., Sleegers, W., & Ye, M. (2019). Social support benefits psychological adjustment of international students: Evidence from a meta-analysis. *Journal of Cross-Cultural Psychology, 50*(7), 827-847.

Bernabé, M., & Botia, J. M. (2016). Resilience as a mediator in emotional social support's relationship with occupational psychology health in firefighters. *Journal of Health Psychology, 21*(8), 1778-1786.

Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media and adolescent wellbeing: A systematic narrative review. *Children and Youth Services Review, 41*, 27-36.

Biddle, L., Donovan, J., Sharp, D., & Gunnell, D. (2007). Explaining non-help-seeking amongst young adults with mental distress: a dynamic interpretive model of illness behaviour. *Sociology of Health & Illness, 29*(7), 983-1002.

Birnholtz, J., Merola, N. A. R., & Paul, A. (2015, April). Is it weird to still be a virgin: Anonymous, locally targeted questions on Facebook confession boards. In *Proceedings of the 33rd annual ACM conference on human factors in computing systems* (pp. 2613-2622). New York, NY: ACM, Inc. https://dl.acm.org/doi/10.1145/2702123.2702410

Blight, M. G., Jagiello, K., & Ruppel, E. K. (2015). “Same stuff different day:” A mixed-method study of support seeking on Facebook. *Computers in Human Behavior, 53*, 366-373.

Bogolyubova, O., Upravitelev, P., Churilova, A., & Ledovaya, Y. (2018). Expression of psychological distress on Instagram using hashtags in Russian and English: A comparative analysis. *SAGE Open, 8*(4), 1-9.

Bohon, L. M., Cotter, K. A., Kravitz, R. L., Cello Jr, P. C., & Fernandez y Garcia, E. (2016). The Theory of Planned Behavior as it predicts potential intention to seek mental health services for depression among college students. *Journal of American College Health, 64*(8), 593-603.

Boros, S., Van Gorp, L., & Boiger, M. (2019). When holding in prevents from reaching out: emotion suppression and social support-seeking in multicultural groups. *Frontiers in Psychology, 10*, 2431.

boyd, d. m., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-mediated Communication, 13*(1), 210-230.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet, 395*, 912-920.

Bruffaerts, R., Mortier, P., Kiekens, G., Auerbach, R. P., Cuijpers, P., Demyttenaere, K., ... & Kessler, R. C. (2018). Mental health problems in college freshmen: Prevalence and academic functioning. *Journal of Affective Disorders, 225*, 97-103.

Budenz, A., Klassen, A., Purtle, J., Yom Tov, E., Yudell, M., & Massey, P. (2020). Mental illness and bipolar disorder on Twitter: implications for stigma and social support. *Journal of Mental Health, 29*(2), 191-199.

Buehler, E. M., Crowley, J. L., Peterson, A. M., & High, A. C. (2019). Broadcasting for help: A typology of support-seeking strategies on Facebook. *New Media & Society, 21*(11-12), 2566-2588.

Buscemi, J., Murphy, J. G., Martens, M. P., McDevitt-Murphy, M. E., Dennhardt, A. A., & Skidmore, J. R. (2010). Help-seeking for alcohol-related problems in college students: Correlates and preferred resources. *Psychology of Addictive Behaviors, 24*(4), 571.

Caers, R., De Feyter, T., De Couck, M., Stough, T., Vigna, C., & Du Bois, C. (2013). Facebook: A literature review. *New Media & Society, 15*(6), 982-1002.

Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 112934.

Carlyle, K. E., Guidry, J. P., Williams, K., Tabaac, A., & Perrin, P. B. (2018). Suicide conversations on Instagram™: contagion or caring?. *Journal of Communication in Healthcare, 11*(1), 12-18.

Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. Atlantic *Journal of Communication, 23*(1), 46-65.

Cava, M. A., Fay, K. E., Beanlands, H. J., McCay, E. A., & Wignall, R. (2005). The experience of quarantine for individuals affected by SARS in Toronto. *Public Health Nursing*, *22*(5), 398-406.

Centers for Disease Control and Prevention (2021, January 31). CDC COVID data tracker. Retrieved from https://covid.cdc.gov/covid-data-tracker/#cases_casesper100klast7days

Chung, J. E. (2013). Social networking in online support groups for health: how online social networking benefits patients. *Journal of Health Communication, 19*(6), 639-659.

Chen, X., Sun, M., Wu, D., & Song, X. Y. (2019). Information-Sharing Behavior on WeChat Moments: The Role of Anonymity, Familiarity, and Intrinsic Motivation. *Frontiers in Psychology, 10*, 2540.

Cho, H., & Huang, L. (2017). Aspects of help seeking among collegiate victims of dating violence. *Journal of Family Violence, 32*(4), 409-417.

Clement, J. (2019, August 14). Twitter: Number of monthly active users 2010-2019. Statista. Retrieved from https://www.statista.com/statistics/282087/number-of-monthly-active-twitter-users/

Clement, J. (2020a, February 7). Snapchat – Statistics & Facts. Statista. Retrieved from https://www.statista.com/topics/2882/snapchat/

Clement, J. (2020b, May 14). Instagram – Statistics & Facts. Statista. Retrieved from https://www.statista.com/topics/1882/instagram/

Clement, J. (2020c, August 10). Facebook: Number of monthly active users worldwide 2008-2020. Statista. Retrieved from https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users worldwide/#:~:text=With%20over%202.7%20billion%20monthly,the%20biggest%20social%20network%20worldwide.

Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J. S. L., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine, 45*(1), 11–27.

Cohen, S. (2004). Social relationships and health. *American Psychologist, 59*(8), 676-684.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310-357.

Cole, D. A., Nick, E. A., Varga, G., Smith, D., Zelkowitz, R. L., Ford, M. A., & Lédeczi, Á. (2019). Are aspects of Twitter use associated with reduced depressive symptoms? The moderating role of in-person social support. *Cyberpsychology, Behavior, and Social Networking, 22*(11), 692-699.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory. *Psychological Bulletin, 127*(1), 87-127.

Conceição, E. M., Fernandes, M., de Lourdes, M., Pinto-Bastos, A., Vaz, A. R., & Ramalho, S. (2020). Perceived social support before and after bariatric surgery: association with depression, problematic eating behaviors, and weight outcomes. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity*, *25*(3), 679-692.

Corrigan, P. W. & Kosyluk, K. A. (2014). Mental illness stigma: Types, constructs, and vehicles for change. In P. W. Corrigan (Ed.), *The stigma of disease and disability: Understanding causes and overcoming injustices* (pp. 35-56). Washington, DC: American Psychological Association.

Corrigan, P. W., Kosyluk, K. A., Markowitz, F., Brown, R. L., Conlon, B., Rees, J., ... & Al-Khouja, M. (2016). Mental illness stigma and disclosure in college students. *Journal of Mental Health*, *25*(3), 224-230.

Corrigan, P. W., Watson, A. C., & Barr, L. (2006). The self-stigma of mental illness: Implications for self-esteem and self-efficacy. *Journal of Social and Clinical Psychology, 25*, 875–884.

Creamer, M. R., Delk, J., Case, K., Perry, C. L., & Harrell, M. B. (2018). Positive outcome expectations and tobacco product use behaviors in youth. *Substance Use & Misuse, 53*(8), 1399-1402.

Cuijpers, P., Auerbach, R. P., Benjet, C., Bruffaerts, R., Ebert, D., Karyotaki, E., & Kessler, R. C. (2019). World Health Organization world mental health international college student initiative: An overview. *International Journal of Methods in Psychiatric Research, 28*(2), Article e1761.

Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Towards a theory of optimal matching. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 319–366). New York, NY: Wiley.

Czyz, E. K., Horwitz, A. G., Eisenberg, D., Kramer, A., & King, C. A. (2013). Self-reported barriers to professional help seeking among college students at elevated risk for suicide. *Journal of American College Health, 61*(7), 398-406.

Daniels, K., Beesley, N., Wimalasiri, V., & Cheyne, A. (2013). Problem solving and well-being: Exploring the instrumental role of job control and social support. *Journal of Management, 39*, 1016–1043.

Dardas, L. A., Silva, S. G., van de Water, B., Vance, A., Smoski, M. J., Noonan, D., & Simmons, L. A. (2019). Psychosocial correlates of Jordanian adolescents' help-seeking intentions for depression: Findings from a nationally representative school survey. *The Journal of School Nursing, 35*(2), 117-127.

De Kimpe, L., Ponnet, K., Walrave, M., Snaphaan, T., Pauwels, L., & Hardyns, W. (2020). Help, I need somebody: Examining the antecedents of social support seeking among cybercrime victims. *Computers in Human Behavior, 108*, Article 106310.

DeLoveh, H. L., & Cattaneo, L. B. (2017). Deciding where to turn: a qualitative investigation of college students' help seeking decisions after sexual assault. *American Journal of Community Psychology, 59*(1-2), 65-79.

Desharnais, R., Bouillon, J., & Godin, G. (1986). Self-efficacy and outcome expectations as determinants of exercise adherence. *Psychological Reports, 59*(3), 1155-1159.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D. W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research, 97*(2), 143-156.

Domhardt, M., Münzer, A., Fegert, J. M., & Goldbeck, L. (2015). Resilience in survivors of child sexual abuse: A systematic review of the literature. *Trauma, Violence, & Abuse, 16*, 476–493.

Dour, H. J., Wiley, J. F., Roy-Byrne, P., Stein, M. B., Sullivan, G., Sherbourne, C. D., ... & Craske, M. G. (2014). Perceived social support mediates anxiety and depressive symptom changes following primary care intervention. *Depression and Anxiety, 31*(5), 436-442.

Eagle, R. B. (2019). "Have you tried ginger?": Severe pregnancy sickness and intensive mothering on Instagram. *Feminist Media Studies, 19*(5), 767–769.

Eisenberg, D., Hunt, J., & Speer, N. (2012). Help seeking for mental health on college campuses: Review of evidence and next steps for research and practice. *Harvard Review of Psychiatry, 20*(4), 222-232.

Ellis, W. E., Dumas, T. M., & Forbes, L. M. (2020). Physically isolated but socially connected: Psychological adjustment and stress among adolescents during the initial COVID-19 crisis. *Canadian Journal of Behavioural Science, 52*(3), 177-187.

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook ‘‘friends:’’ Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication, 12*, 1143–1168.

Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society, 13*(6), 873-892.

Facebook. (2021). How news feed works. Retrieved from https://www.facebook.com/help/1155510281178725

Fitzpatrick, K. M., Harris, C., & Drawve, G. (2020). Fear of COVID-19 and the mental health consequences in America. *Psychological Trauma: Theory, Research, Practice, and Policy, 12*(1), 17-21.

Fox, A. B., Earnshaw, V. A., Taverna, E. C., & Vogt, D. (2018). Conceptualizing and measuring mental illness stigma: The mental illness stigma framework and critical review of measures. *Stigma and Health, 3*(4), 348–376.

Fox, J. & McEwan, B. (2020). Social Media. In M. B. Oliver, A. A. Raney, & J. Bryant (Eds.), *Media effects: Advances in theory and research* (4th ed.). New York, NY: Routledge.

Frison, E., & Eggermont, S. (2015). The impact of daily stress on adolescents’ depressed mood: The role of social support seeking through Facebook. *Computers in Human Behavior, 44*, 315-325.

Gan, D., & Jenkins, L. R. (2015). Social networking privacy—Who’s stalking you?. *Future Internet, 7*(1), 67-93.

Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., ... & Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. *PLOS ONE, 15*(4), Article e0231924.

Gariepy, G., Honkaniemi, H., & Quesnel-Vallee, A. (2016). Social support and protection from depression: systematic review of current findings in Western countries. *The British Journal of Psychiatry, 209*(4), 284-293.

Georgia State University (2017, December 13). Georgia State scores high in Brookings Institution research on social mobility. Retrieved from https://news.gsu.edu/2017/12/13/georgia-state-scores-high-brookings-institution-research-social-mobility-impact-among-selective-universities/

Gilmour, J., Machin, T., Brownlow, C., & Jeffries, C. (2020). Facebook-based social support and health: A systematic review. *Psychology of Popular Media, 9*(3), 328-346.

Glozah, F. N. (2013). Effects of academic stress and perceived social support on the psychological wellbeing of adolescents in Ghana. *Open Journal of Medical Psychology, 2*, 143–150.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. New York, NY: Simon & Schuster.

Goffman, E. (1978). *The presentation of self in everyday life*. London, UK: Harmondsworth.

Goodwin, J., Behan, L., Kelly, P., McCarthy, K., & Horgan, A. (2016). Help-seeking behaviors and mental well-being of first year undergraduate university students. *Psychiatry Research, 246*, 129-135.

Gowen, K., Deschaine, M., Gruttadara, D., & Markey, D. (2012). Young adults with mental health conditions and social networking websites: Seeking tools to build community. *Psychiatric Rehabilitation Journal, 35*(3), 245-250.

Grasmuck, S., Martin, J., & Zhao, S. (2009). Ethno-racial identity displays on Facebook. *Journal of Computer-mediated Communication, 15*(1), 158-188.

Green, T., Wilhelmsen, T., Wilmots, E., Dodd, B., & Quinn, S. (2016). Social anxiety, attributes of online communication and self-disclosure across private and public Facebook communication. *Computers in Human Behavior, 58*, 206-213.

Greene, J. A., Choudhry, N. K., Kilabuk, E., & Shrank, W. H. (2011). Online social networking by patients with diabetes: a qualitative evaluation of communication with Facebook. *Journal of General Internal Medicine, 26*(3), 287-292.

Griffiths, K. M., Christensen, H., & Jorm, A. F. (2008). Predictors of depression stigma. *BMC Psychiatry, 8*(1), 1-12.

Griffiths, K. M., Crisp, D. A., Barney, L., & Reid, R. (2011). Seeking help for depression from family and friends: A qualitative analysis of perceived advantages and disadvantages. *BMC Psychiatry, 11*(1), 196-207.

Guilaran, J., de Terte, I., Kaniasty, K., & Stephens, C. (2018). Psychological outcomes in disaster responders: A systematic review and meta-analysis on the effect of social support. *International Journal of Disaster Risk Science, 9*(3), 344-358.

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. *BMC Psychiatry, 10*, Article 113.

Gulliver, A., Griffiths, K.M., & Christensen, H. (2012). Barriers and facilitators to mental health help-seeking for young elite athletes: A qualitative study. *BMC Psychiatry 12,* Article 157.

Haber, M. G., Cohen, J. L., Lucas, T., & Baltes, B. B. (2007). The relationship between self-reported received and perceived social support: A meta-analytic review. *American Journal of Community Psychology, 39*(1-2), 133-144.

Halbesleben, J. R. (2006). Sources of social support and burnout: A meta-analytic test of the conservation of resources model. *Journal of Applied Psychology, 91*(5), 1134-1145.

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). New York, NY: Guilford Press.

Hayes, R. A., Carr, C. T., & Wohn, D. Y. (2016). It's the audience: Differences in social support across social media. *Social Media+ Society, 2*(4), 1-12.

Hawryluck, L., Gold, W. L., Robinson, S., Pogorski, S., Galea, S., & Styra, R. (2004). SARS control and psychological effects of quarantine, Toronto, Canada. *Emerging Infectious Diseases, 10*(7), 1206-1212.

Heaney, C. A. & Viswanath, K. (2015). Introduction to models of interpersonal influences on health behavior. In K. Glanz, B. K. Rimer & K. Viswanath (Eds.), *Health behavior: Theory, research, and practice (*5th ed., pp. 151-158). San Francisco, CA: Jossey-Bass, Inc.

Hedge, J. M., Sianko, N., & McDonell, J. R. (2017). Professional help-seeking for adolescent dating violence in the rural south: The role of social support and informal help-seeking. *Violence against Women, 23*(12), 1442-1461.

Heerde, J. A., & Hemphill, S. A. (2018). Examination of associations between informal help-seeking behavior, social support, and adolescent psychosocial outcomes: A meta-analysis. *Developmental Review, 47,* 44-62.

Hefner, J., & Eisenberg, D. (2009). Social support and mental health among college students. *American Journal of Orthopsychiatry*, *79*(4), 491-499.

Henderson, C., Evans-Lacko, S., & Thornicroft, G. (2013). Mental illness stigma, help seeking, and public health programs. *American Journal of Public Health, 103*(5), 777–780.

Henshaw, E. J., & Freedman-Doan, C. R. (2009). Conceptualizing mental health care utilization using the health belief model. *Clinical Psychology: Science and Practice, 16*(4), 420-439.

Hill, E. M. (2016). Quality of life and mental health among women with ovarian cancer: examining the role of emotional and instrumental social support seeking. *Psychology, Health & Medicine, 21*(5), 551-561.

Hobfoll, S. E. (2009). Social support: The movie. *Journal of Social and Personal Relationships. Special Issue: Social Support, 26*, 93−101.

Hoffner, C. A. (2017, May). Sharing negative and positive emotion on Facebook. Paper presented at the International Communication Association Conference, San Diego, CA.

Hollenbaugh, E. E. (2019). Privacy management among social media natives: An exploratory study of Facebook and Snapchat. *Social Media+ Society, 5*(3), 1-14.

Holmes, R. (2020, April 24). Is COVID-19 social media's levelling up moment?. Retrieved from https://www.forbes.com/sites/ryanholmes/2020/04/24/is-covid-19-social-medias-levelling-up-moment/?sh=72fe43946c60

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research, 11*(2), 213-218.

Holt-Lunstad, J. & Uchino, B. N. (2015). Social support and health. In K. Glanz, B. K. Rimer & K. Viswanath (Eds.), *Health behavior: Theory, research, and practice* (5th ed., pp. 183-204). San Francisco, CA: Jossey-Bass, Inc.

Hosterman, A. R., Johnson, N. R., Stouffer, R., & Herring, S. (2018). Twitter, social support messages, and the #MeToo movement. *The Journal of Social Media in Society, 7*(2), 69-91.

House, J. & Kahn, R. (1985). Measures and concepts of social support. In S. Cohen & S. Syme (Eds.), *Social support and health* (pp. 83-108). Orlando, FL: Academic Press.

Huck, G. E., Brooks, J. M., & Chan, F. (2019). An exploration of the commonalities and unique associations of common health behavior theories for predicting physical activity among individuals living with severe mental illness. *Journal of Rehabilitation, 85*(3), 44-54.

Hunt, J., & Eisenberg, D. (2010). Mental health problems and help-seeking behavior among college students. *Journal of Adolescent Health, 46*(1), 3–10.

Hutchesson, M. J., Rollo, M. E., Krukowski, R., Ells, L., Harvey, J., Morgan, P. J., Callister, R., Plotnikoff, R., & Collins, C. E. (2015). eHealth interventions for the prevention and treatment of overweight and obesity in adults: A systematic review with meta-analysis. *Obesity Treatment and Prevention, 16*(5), 376-392.

Hutchinson, A. (2020, October 20). Snapchat Reports Increase in Users and Revenue in Q3. Social Media Today. Retrieved from https://www.socialmediatoday.com/news/snapchat-reports-increases-in-both-users-and-revenue-rise-in-strong-quarter/587433/

Iannotti, R. J., Schneider, S., Nansel, T. R., Haynie, D. L., Plotnick, L. P., Clark, L. M., ... & Simons-Morton, B. (2006). Self-efficacy, outcome expectations, and diabetes self-

management in adolescents with type 1 diabetes. *Journal of Developmental & Behavioral Pediatrics, 27*(2), 98-105.

Iarovici, D. (2014). *Mental health issues and the university student*. Baltimore, MD: Johns Hopkins University Press.

Ibarra-Rovillard, M. S., & Kuiper, N. A. (2011). Social support and social negativity findings in depression: Perceived responsiveness to basic psychological needs. *Clinical Psychology Review, 31*(3), 342-352.

Indian, M., & Grieve, R. (2014). When Facebook is easier than face-to-face: Social support derived from Facebook in socially anxious individuals. *Personality and Individual Differences, 59*, 102-106.

Jackson, E. S., Tucker, C. M., & Herman, K. C. (2007). Health value, perceived social support, and health self-efficacy as factors in a health-promoting lifestyle. *Journal of American College Health, 56*(1), 69-74.

Jackson, T. (2006). Relationships between perceived close social support and health practices within community samples of American women and men. *The Journal of Psychology, 140*(3), 229-246.

Jennings, K. S., Cheung, J. H., Britt, T. W., Goguen, K. N., Jeffirs, S. M., Peasley, A. L., & Lee, A. C. (2015). How are perceived stigma, self-stigma, and self-reliance related to treatment-seeking? A three-path model. *Psychiatric Rehabilitation Journal, 38*(2), 109-116.

Jennings, E. A., Ralston, M., & Schatz, E. (2020). Support in times of need: How depressive symptoms can impact receipt of social support among aging adults in rural South Africa. *SSM-Population Health, 12*, Article 100666.

Jiang, Y., Naqvi, M. H., & Abbas Naqvi, M. H. (2020). Psychological predictors of Facebook use: A literature review. *International Journal of Management, Economics and Social Sciences, 9*(2), 113-130.

Johnco, C., & Rapee, R. M. (2018). Depression literacy and stigma influence how parents perceive and respond to adolescent depressive symptoms. *Journal of Affective Disorders, 241*, 599-607.

Joseph, R. P., Royse, K. E., Benitez, T. J., & Pekmezi, D. W. (2014). Physical activity and quality of life among university students: exploring self-efficacy, self-esteem, and affect as potential mediators. *Quality of Life Research, 23*(2), 659-667.

Kanekar, A., Sharma, M., & Bennett, R. (2015). Using social cognitive theory to predict safer sex behaviors in college students. *American Journal of Health Studies, 30*(2), 90-96.

Kenny, R., Dooley, B., & Fitzgerald, A. (2016). How psychological resources mediate and perceived social support moderates the relationship between depressive symptoms and help-seeking intentions in college students. *British Journal of Guidance & Counselling, 44*(4), 402-413.

Khan, K. S., Mamun, M. A., Griffiths, M. D., & Ullah, I. (2020). The mental health impact of the COVID-19 pandemic across different cohorts. *International Journal of Mental Health and Addiction,* 1-7. Online first article.
Retrieved from https://link.springer.com/article/10.1007/s11469-020-00367-0

King, K. A., Strunk, C. M., & Sorter, M. T. (2011). Preliminary effectiveness of surviving the Teens® Suicide Prevention and Depression Awareness Program on adolescents' suicidality and self-efficacy in performing help-seeking behaviors. *Journal of School Health, 81*(9), 581-590.

Klyver, K., Honig, B., & Steffens, P. (2018). Social support timing and persistence in nascent entrepreneurship: exploring when instrumental and emotional support is most effective. *Small Business Economics, 51*(3), 709-734.

Kroshus, E., Hawrilenko, M., & Browning, A. (2021). Stress, self-compassion, and well-being during the transition to college. *Social Science & Medicine, 269,* Article 113514.

Kugbey, N. (2015). The influence of social support on the levels of depression, anxiety and stress among students in Ghana. *Journal of Education and Practice, 6*(25), 135–140.

Lachmar, E. M., Wittenborn, A. K., Bogen, K. W., & McCauley, H. L. (2017). # MyDepressionLooksLike: Examining public discourse about depression on twitter. *JMIR Mental Health, 4*(4), e43-e53.

Laidlaw, A., McLellan, J., & Ozakinci, G. (2016). Understanding undergraduate student perceptions of mental health, mental well-being and help-seeking behaviour. *Studies in Higher Education, 41*(12), 2156-2168.

Lee, C. Y. S., & Dik, B. J. (2017). Associations among stress, gender, sources of social support, and health in emerging adults. *Stress and Health, 33*(4), 378-388.

Lee, J. (2020). Mental health effects of school closures during COVID-19. *The Lancet: Child & Adolescent Health, 4*(6), 421.

Lee, S., Chung, J. E., & Park, N. (2018). Network environments and well-being: An examination of personal network structure, social capital, and perceived social support. *Health Communication, 33*(1), 22-31.

Leroux, J., Rizzo, J. A., & Sickles, R. (2012). The role of self-reporting bias in health, mental health and labor force participation: a descriptive analysis. *Empirical Economics, 43*(2), 525-536.

Li, M. H., Eschenauer, R., & Persaud, V. (2018). Between avoidance and problem solving: Resilience, self-efficacy, and social support seeking. *Journal of Counseling & Development, 96*(2), 132-143.

Li, W., Dorstyn, D. S., & Denson, L. A. (2014). Psychosocial correlates of college students' help-seeking intention: A meta-analysis. *Professional Psychology: Research and Practice, 45*(3), 163-170.

Li, Y., Guan, M., Hammond, P., & Berrey, L. E. (2021). Communicating COVID-19 information on TikTok: A content analysis of TikTok videos from official accounts featured in the COVID-19 information hub. *Health Education Research, 36*(3), 261-271.

Lin, C. Y., Broström, A., Griffiths, M. D., & Pakpour, A. H. (2020). Investigating mediated effects of fear of COVID-19 and COVID-19 misunderstanding in the association between problematic social media use, psychological distress, and insomnia. *Internet Interventions, 21,* Article 100345.

Link, B. G. (1982). Mental patient status, work, and income: An examination of the effects of a psychiatric label. *American Sociological Review, 47*, 202–215.

Link, B. G. (1987). Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review, 52,* 96–112.

Link, B. G., Cullen, F. T., Struening, E., Shrout, P. E., & Dohrenwend, B. P. (1989). A modified labeling theory approach to mental disorders: An empirical assessment. *American Sociological Review, 54*, 400–423.

Link, B. G., & Phelan, J. C. (2013). Labeling and stigma. In C. S. Aneshensel, J. C. Phelan, & A. Bierman (Eds.), *Handbook of the sociology of mental health* (2nd ed., pp. 525-541). New York, NY: Springer.

Lisitsa, E., Benjamin, K. S., Chun, S. K., Skalisky, J., Hammond, L. E., & Mezulis, A. H. (2020). Loneliness among young adults during covid-19 pandemic: The mediational roles of social media use and social support seeking. *Journal of Social and Clinical Psychology, 39*(8), 708-726.

Liu, B., & Wei, L. (2018). Modeling social support on social media: Effect of publicness and the underlying mechanisms. *Computers in Human Behavior, 87*, 263-275.

Luo, C., Li, Y., Chen, A., & Tang, Y. (2020). What triggers online help-seeking retransmission during the COVID-19 period? Empirical evidence from Chinese social media. *PLOS ONE*, *15*(11), Article e0241465.

Luyckx, K., Klimstra, T. A., Duriez, B., Schwartz, S. J., & Vanhalst, J. (2012). Identity processes and coping strategies in college students: Short-term longitudinal dynamics and the role of personality. *Journal of Youth and Adolescence, 41*, 1226–1239.

MacGeorge, E. L., Feng, B., & Burleson, B. R. (2011). Supportive communication. In M.L. Knapp & J.A. Daly (Eds.), *The SAGE handbook of interpersonal communication* (Vol. 4, pp. 317-354). Thousand Oaks, CA: SAGE.

Mackey, E. R., Olson, A., Merwin, S., Wang, J., & Nadler, E. P. (2018). Perceived social support for exercise and weight loss in adolescents undergoing sleeve gastrectomy. *Obesity Surgery*, *28*(2), 421-426.

Magaard, J. L., Seeralan, T., Schulz, H., & Brütt, A. L. (2017). Factors associated with help-seeking behaviour among individuals with major depression: A systematic review. *PLOS ONE, 12*(5), Article e0176730.

Malecki, C. K., & Demaray, M. K. (2003). What type of support do they need? Investigating student adjustment as related to emotional, informational, appraisal, and instrumental support. *School Psychology Quarterly, 18*(3), 231-252.

Manago, A. M., Taylor, T., & Greenfield, P. M. (2012). Me and my 400 friends: The anatomy of college students' Facebook networks, their communication patterns, and well-being. *Developmental Psychology, 48*(2), 369-380.

Marroquín, B., Vine, V., & Morgan, R. (2020). Mental health during the COVID-19 pandemic: Effects of stay-at-home policies, social distancing behavior, and social resources. *Psychiatry Research, 293*, 113419.

Masciantonio, A., Bourguignon, D., Bouchat, P., Balty, M., & Rimé, B. (2021). Don't put all social network sites in one basket: Facebook, Instagram, Twitter, TikTok, and their relations with well-being during the COVID-19 pandemic. *PLOS ONE, 16*(3), e0248384.

McDermott, R. C., Smith, P. N., Borgogna, N., Booth, N., Granato, S., & Sevig, T. D. (2018). College students' conformity to masculine role norms and help-seeking intentions for suicidal thoughts. *Psychology of Men & Masculinity, 19*(3), 340-351.

McEachan, R. R. C., Conner, M., Taylor, N. J., & Lawton, R. J. (2011). Prospective prediction of health-related behaviours with the Theory of Planned Behaviour: A meta-analysis. *Health Psychology Review, 5*, 97–144.

McKinley, C. J., & Wright, P. J. (2014). Informational social support and online health information seeking: Examining the association between factors contributing to healthy eating behavior. *Computers in Human Behavior, 37*, 107-116.

Meng, J., Martinez, L., Holmstrom, A., Chung, M., & Cox, J. (2017). Research on social networking sites and social support from 2004 to 2015: A narrative review and directions for future research. *Cyberpsychology, Behavior, and Social Networking, 20*(1), 44-51.

Merrill, J. B., & Oremus, W. (2021, October 26). Five points for anger, one for a 'like': How Facebook's formula fostered rage and misinformation. *The Washington Post*. Retrieved from https://www.washingtonpost.com/technology/2021/10/26/facebook-angry-emoji-algorithm/

Meyer, S., & Eggins, E. (2018). Formal and informal help-seeking by Australian parents who misuse alcohol. *Child Abuse Review, 27*(4), 317-335.

Moore, C. D., Schofield, C., van Rooyen, D. R., & Andersson, L. M. (2015). Development and preliminary validation of a scale to measure self-efficacy in seeking mental health care (SE-SMHC). *SpringerPlus, 4*(1), 1-8.

Moreno, M. A., & D'Angelo, J. (2019). Social Media Intervention Design: Applying an Affordances Framework. *Journal of Medical Internet Research, 21*(3), e11014.

Moreno, M. A., Jelenchick, L. A., Egan, K. G., Cox, E., Young, H., Gannon, K. E., & Becker, T. (2011). Feeling bad on Facebook: Depression disclosures by college students on a social networking site. *Depression and Anxiety, 28*(6), 447-455.

Mulfinger, N., Rüsch, N., Bayha, P., Müller, S., Böge, I., Sakar, V., & Krumm, S. (2019). Secrecy versus disclosure of mental illness among adolescents: I. The perspective of adolescents with mental illness. *Journal of Mental Health, 28*(3), 296-303.

Nabi, R. L., Prestin, A., & So, J. (2013). Facebook friends with (health) benefits? Exploring social network site use and perceptions of social support, stress, and well-being. *Cyberpsychology, Behavior, and Social Networking, 16*(10), 721-727.

National Center for Education Statistics (2021). Georgia State University. Retrieved from https://nces.ed.gov/collegenavigator/?q=georgia+state+university&s=all&id=139940#enrolmt

Nabity-Grover, T., Cheung, C. M., & Thatcher, J. B. (2020). Inside out and outside in: How the COVID-19 pandemic affects self-disclosure on social media. *International Journal of Information Management*, *55*, Article 102188.

Nagai, S. (2015). Predictors of help-seeking behavior: Distinction between help-seeking intentions and help-seeking behavior. *Japanese Psychological Research, 57*(4), 313-322.

Naslund, J. A., Aschbrenner, K. A., Marsch, L. A., & Bartels, S. J. (2016). The future of mental health care: peer-to-peer support and social media. *Epidemiology and Psychiatric Sciences, 25*(2), 113-122.

Ni, M. Y., Yang, L., Leung, C. M., Li, N., Yao, X. I., Wang, Y., ... & Liao, Q. (2020). Mental health, risk factors, and social media use during the COVID-19 epidemic and cordon sanitaire among the community and health professionals in Wuhan, China: Cross-sectional survey. *JMIR Mental Health, 7*(5), Article e19009.

Norberg, A. L., Lindblad, F., & Boman, K. K. (2006). Support-seeking, perceived support, and anxiety in mothers and fathers after children's cancer treatment. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer, 15*(4), 335-343.

Noret, N., Hunter, S. C., & Rasmussen, S. (2020). The role of perceived social support in the relationship between being bullied and mental health difficulties in adolescents. *School Mental Health, 12*(1), 156-168.

O'Connor, P. J., Martin, B., Weeks, C. S., & Ong, L. (2014). Factors that influence young people's mental health help-seeking behaviour: A study based on the Health Belief Model. *Journal of Advanced Nursing, 70*(11), 2577-2587.

Odekerken-Schröder, G., Mele, C., Russo-Spena, T., Mahr, D., & Ruggiero, A. (2020). Mitigating loneliness with companion robots in the COVID-19 pandemic and beyond: An integrative framework and research agenda. *Journal of Service Management, 31*(6), 1149-1162.

Oh, H. J., Lauckner, C., Boehmer, J., Fewins-Bliss, R., & Li, K. (2013). Facebooking for health: An examination into the solicitation and effects of health-related social support on social networking sites. *Computers in Human Behavior, 29*(5), 2072-2080.

Okabayashi, H., Liang, J., Krause, N., Akiyama, H., & Sugisawa, H. (2004). Mental health among older adults in Japan: Do sources of social support and negative interaction make a difference?. *Social Science & Medicine, 59*(11), 2259-2270.

Olander, E. K., Fletcher, H., Williams, S., Atkinson, L., Turner, A., & French, D. P. (2013). What are the most effective techniques in changing obese individuals' physical activity self-efficacy and behaviour: A systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity, 10*(1), 29-43.

Omar, B., & Dequan, W. (2020). Watch, share or create: The influence of personality traits and user motivation on TikTok mobile video usage. *International Journal of Interactive Mobile Technologies, 14*(4), 121-137.

Paige, S. R., Stellefson, M., Chaney, B. H., Chaney, D. J., Alber, J. M., Chappell, C., & Barry, A. E. (2017). Examining the relationship between online social capital and eHealth literacy: implications for Instagram use for chronic disease prevention among college students. *American Journal of Health Education, 48*(4), 264-277.

Pajares, F., Prestin, A., Chen, J., & Nabi, R. L. (2009). Social cognitive theory and media effects. In R. L. Nabi & M. B. Oliver (Eds.), *The Sage handbook of media processes and effects* (pp. 283-297). Los Angeles, CA: Sage.

Pattyn, E., Verhaeghe, M., Sercu, C., & Bracke, P. (2014). Public stigma and self-stigma: Differential association with attitudes toward formal and informal help seeking. *Psychiatric Services, 65*(2), 232-238.

Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2015). College students: mental health problems and treatment considerations. *Academic Psychiatry, 39*(5), 503-511.

Petosa, R. L., Suminski, R., & Hortz, B. (2003). Predicting vigorous physical activity using social cognitive theory. *American Journal of Health Behavior, 27*(4), 301-310.

Pew Research Center. (2019). Share of US adults using social media, including Facebook, is mostly unchanged since 2018. Retrieved from https://www.pewresearch.org/fact-tank/2019/04/10/share-of-u-s-adults-using-social-media-including-facebook-is-mostly-unchanged-since-2018/

Pew Research Center. (2021a). Social media use in 2021. Retrieved from https://www.pewresearch.org/internet/2021/04/07/social-media-use-in-2021/

Pew Research Center. (2021b). Who uses TikTok, Nextdoor. Retrieved from https://www.pewresearch.org/internet/chart/who-uses-tiktok-nextdoor/

Pfefferbaum, B., Schonfeld, D., Flynn, B. W., Norwood, A. E., Dodgen, D., Kaul, R. E., ... & Jacobs, G. A. (2012). The H1N1 crisis: A case study of the integration of mental and behavioral health in public health crises. *Disaster Medicine and Public Health Preparedness*, *6*(1), 67-71.

Phua, J., Jin, S. V., & Kim, J. J. (2017). Uses and gratifications of social networking sites for bridging and bonding social capital: A comparison of Facebook, Twitter, Instagram, and Snapchat. *Computers in Human Behavior, 72*, 115-122.

Pittman, M., & Reich, B. (2016). Social media and loneliness: Why an Instagram picture may be worth more than a thousand Twitter words. *Computers in Human Behavior, 62*, 155-167.

Piwek, L., & Joinson, A. (2016). "What do they snapchat about?" Patterns of use in time-limited instant messaging service. *Computers in Human Behavior, 54*, 358-367.

Platt, J. M., Lowe, S. R., Galea, S., Norris, F. H., & Koenen, K. C. (2016). A longitudinal study of the bidirectional relationship between social support and posttraumatic stress following a natural disaster. *Journal of Traumatic Stress*, *29*(3), 205-213.

Pornsakulvanich, V. (2017). Personality, attitudes, social influences, and social networking site usage predicting online social support. *Computers in Human Behavior, 76*, 255–262.

Prati, G., & Pietrantoni, L. (2010). The relation of perceived and received social support to mental health among first responders: A meta-analytic review. *Journal of Community Psychology*, *38*(3), 403-417.

Pratt, L. A., Druss, B. G., Manderscheid, R. W., & Walker, E. R. (2016). Excess mortality due to depression and anxiety in the United States: Results from a nationally representative survey. *General Hospital Psychiatry, 39*, 39-45.

Pretorius, C., Chambers, D., & Coyle, D. (2019). Young people's online help-seeking and mental health difficulties: Systematic narrative review. *Journal of Medical Internet research, 21*(11), e13873.

Pumpuang, W., Seeherunwong, A., & Vongsirimas, N. (2018). Factors predicting intention among nursing students to seek professional psychological help. *Pacific Rim International Journal of Nursing Research, 22*(3), 200-211.

Rains, S. A., Peterson, E. B., & Wright, K. B. (2015). Communicating social support in computer-mediated contexts: A meta-analytic review of content analyses examining support messages shared online among individuals coping with illness. *Communication Monographs, 82*(4), 403-430.

Rains, S. A., & Wright, K. B. (2016). Social support and computer-mediated communication: A state-of-the-art review and agenda for future research. *Annals of the International Communication Association, 40*(1), 175-211.

Rains, S. A., & Young, V. (2009). A meta-analysis of research on formal computer-mediated support groups: Examining group characteristics and health outcomes. *Human Communication Research, 35*(3), 309-336.

Reid, G. M., Holt, M. K., Bowman, C. E., Espelage, D. L., & Green, J. G. (2016). Perceived social support and mental health among first-year college students with histories of bullying victimization. *Journal of Child and Family Studies, 25*(11), 3331-3341.

Reinhardt, J. P., Boerner, K., & Horowitz, A. (2006). Good to have but not to use: Differential impact of perceived and received support on well-being. *Journal of Social and Personal Relationships, 23*(1), 117-129.

Rickwood, D., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2005). Young people's help-seeking for mental health problems. *Australian E-journal for the Advancement of Mental Health, 4*(3), 218-251.

Rickwood, D. J., Mazzer, K. R., & Telford, N. R. (2015). Social influences on seeking help from mental health services, in-person and online, during adolescence and young adulthood. *BMC Psychiatry, 15*(1), 1-9.

Rife, S. C., Kerns, K. A., & Updegraff, J. A. (2016). Seeking support in response to social and achievement stressors: A multivenue analysis. *Personal Relationships, 23*(2), 364-379.

Rising, C. J., Bol, N., Burke-Garcia, A., Rains, S., & Wright, K. B. (2017). Perceived stress in online prostate cancer community participants: examining relationships with stigmatization, social support network preference, and social support seeking. *Journal of Health Communication, 22*(6), 469-476.

Robinson, J. D., & Tian, Y. (2009). Cancer patients and the provision of informational social support. *Health Communication, 24*(5), 381-390.

Rodgers, S., Vandeleur, C. L., Strippoli, M. P., Castelao, E., Tesic, A., Glaus, J., Lasserre, A. M., Muller, M., Rossler, W., Ajdacic-Gross, V., & Preisig, M. (2017). Low emotion-oriented coping and informal help-seeking behaviour as major predictive factors for improvement in major depression at 5-year follow-up in the adult community. *Social Psychiatry and Psychiatric Epidemiology, 52*(9), 1169-1182.

Rolling, T. E., & Hong, M. Y. (2016). The effect of social cognitive theory-based interventions on dietary behavior within children. *Journal of Nutritional Health & Food Science, 4*(5), 1-9.

Rosen, L. D., Carrier, L. M., & Cheever, N. A. (2013). Facebook and texting made me do it: Media-induced task-switching while studying. *Computers in Human Behavior, 29*(3), 948-958.

Roskar, S., Bracic, M. F., Kolar, U., Lekic, K., Juricic, N. K., Grum, A. T., Dobnik, B., Postuvan, V., & Vatovec, M. (2017). Attitudes within the general population towards seeking professional help in cases of mental distress. *International Journal of Social Psychiatry, 63*(7), 614-621.

Roth, S., & Cohen, L. F. (1986). Approach, avoidance and coping with stress. *American Psychologist, 41*, 813–819.

Rozzell, B., Piercy, C. W., Carr, C. T., King, S., Lane, B. L., Tornes, M., ... & Wright, K. B. (2014). Notification pending: Online social support from close and nonclose relational ties via Facebook. *Computers in Human Behavior, 38*, 272-280.

Rueger, S. Y., Malecki, C. K., & Demaray, M. K. (2010). Relationship between multiple sources of perceived social support and psychological and academic adjustment in early adolescence: Comparisons across gender. *Journal of Youth and Adolescence, 39*(1), 47-61.

Rueger, S. Y., Malecki, C. K., Pyun, Y., Aycock, C., & Coyle, S. (2016). A meta-analytic review of the association between perceived social support and depression in childhood and adolescence. *Psychological Bulletin, 142*(10), 1017-1067.

Ryan, M. L., Shochet, I. M., & Stallman, H. M. (2010). Universal online interventions might engage psychologically distressed university students who are unlikely to seek formal help. *Advances in Mental Health, 9*(1), 73-83.

Sabina, C., & Banyard, V. (2015). Moving toward well-being: The role of protective factors in violence research. *Psychology of Violence, 5*, 337–342.

Sahu, P. (2020). Closure of universities due to Coronavirus Disease 2019 (COVID-19): impact on education and mental health of students and academic staff. *Cureus*, *12*(4).

Saud, M., Mashud, M. I., & Ida, R. (2020). Usage of social media during the pandemic: Seeking support and awareness about COVID-19 through social media platforms. *Journal of Public Affairs, 20*(4), Article e02417.

Scarapicchia, T. M. F., Amireault, S., Faulkner, G., & Sabiston, C. M. (2017). Social support and physical activity participation among healthy adults: A systematic review of prospective studies. *International Review of Sport and Exercise Psychology, 10*(1), 50-83.

Scheff, T. J. (1966). *Being mentally ill: A sociological theory*. Chicago, IL: Aldine.

Scherr, S., & Wang, K. (2021). Explaining the success of social media with gratification niches: Motivations behind daytime, nighttime, and active use of TikTok in China. *Computers in Human Behavior*, 124, Article 106893.

Schnyder, N., Panczak, R., Groth, N., & Schultze-Lutter, F. (2017). Association between mental health-related stigma and active help-seeking: Systematic review and meta-analysis. *The British Journal of Psychiatry, 210*(4), 261-268.

Schomerus, G., & Angermeyer, M. C. (2008). Stigma and its impact on help-seeking for mental disorders: What do we know?. *Epidemiology and Psychiatric Sciences, 17*(1), 31–37.

Schwarzer, R., & Renner, B. (2000). Social-cognitive predictors of health behavior: Action self-efficacy and coping self-efficacy. *Health Psychology, 19*(5), 487-495.

Seamark, D., & Gabriel, L. (2018). Barriers to support: a qualitative exploration into the help-seeking and avoidance factors of young adults. *British Journal of Guidance & Counselling, 46*(1), 120-131.

Serafini, G., Parmigiani, B., Amerio, A., Aguglia, A., Sher, L., & Amore, M. (2020). The psychological impact of COVID-19 on the mental health in the general population. *QJM: An International Journal of Medicine*, *113*(8), 531-537.

Sheeran, P., Maki, A., Montanaro, E., Avishai-Yitshak, A., Bryan, A., Klein, W. M., Miles, E., & Rothman, A. J. (2016). The impact of changing attitudes, norms, and self-efficacy on health-related intentions and behavior: a meta-analysis. *Health Psychology, 35*(11), 1178.

Sheldon, P., & Bryant, K. (2016). Instagram: Motives for its use and relationship to narcissism and contextual age. *Computers in Human Behavior, 58*, 89-97.

Shepherd, A., Sanders, C., Doyle, M., & Shaw, J. (2015). Using social media for support and feedback by mental health service users: Thematic analysis of a twitter conversation. *BMC Psychiatry, 15*(1), 29-37.

Shivani, R., Goldsmith, R. J., & Anthenelli, R. M. (2002). Alcoholism and psychiatric disorders: Diagnostic challenges. *Alcohol Research & Health, 26*(2), 90-98.

Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. *Journal of medical internet research, 22*(9), e21279.

Stacey, F. G., James, E. L., Chapman, K., Courneya, K. S., & Lubans, D. R. (2015). A systematic review and meta-analysis of social cognitive theory-based physical activity and/or nutrition behavior change interventions for cancer survivors. *Journal of Cancer Survivorship, 9*(2), 305-338.

Steptoe, A., Wardle, J., Pollard, T. M., Canaan, L., & Davies, G. J. (1996). Stress, social support and health-related behavior: A study of smoking, alcohol consumption and physical exercise. *Journal of Psychosomatic Research, 41*(2), 171–180.

Stewart, D. W., Gabriele, J. M., & Fisher, E. B. (2012). Directive support, nondirective support, and health behaviors in a community sample. *Journal of Behavioral Medicine, 35*(5), 492–499.

Tang, J. H., Chen, M. C., Yang, C. Y., Chung, T. Y., & Lee, Y. A. (2016). Personality traits, interpersonal relationships, online social support, and Facebook addiction. *Telematics and Informatics, 33*(1), 102-108.

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., ... & Stewart-Brown, S. (2007). The Warwick-Edinburgh mental well-being scale (WEMWBS): Development and UK validation. *Health and Quality of life Outcomes, 5*(1), 1-13.

Teo, A. R., Marsh, H. E., Liebow, S. B., Chen, J. I., Forsberg, C. W., Nicolaidis, C., ... & Dobscha, S. K. (2018). Help-seeking on Facebook versus more traditional sources of help: Cross-sectional survey of military veterans. *Journal of Medical Internet Research, 20*(2), e9007.

Terreri, C. J., & Glenwick, D. S. (2013). The relationship of religious and general coping to psychological adjustment and distress in urban adolescents. *Journal of Religion and Health, 52*, 1188–1202.

Torous, J., Andersson, G., Bertagnoli, A., Christensen, H., Cuijpers, P., Firth, J., Haim, A., Hsin, H., Hollis, C., Lewis, S., Mohr, D. C., Pratap, A., Roux, S., Sherrill, J., & Arean, P. A. (2019). Towards a consensus around standards for smartphone apps and digital mental health. *World Psychiatry, 18*(1), 97.

Trouillet, R., Gana, K., Lourel, M., & Fort, I. (2009). Predictive value of age for coping: the role of self-efficacy, social support satisfaction and perceived stress. *Aging and Mental Health, 13*(3), 357-366.

Uchino, B. (2009). Understanding the links between social support and physical health: A lifespan perspective with emphasis on the separability of perceived and received support. *Perspectives in Psychological Science, 4*, 236–255.

U.S. News & World Report (2021). Campus ethnic diversity. Retrieved from https://www.usnews.com/best-colleges/rankings/national-universities/campus-ethnic-diversity

Van Daalen, G., Willemsen, T. M., & Sanders, K. (2006). Reducing work–family conflict through different sources of social support. *Journal of Vocational Behavior, 69*(3), 462-476.

van‘t Veer, J. T., Kraan, H. F., Drosseart, S. H., & Modde, J. M. (2006). Determinants that shape public attitudes towards the mentally ill. *Social Psychiatry and Psychiatric Epidemiology, 41*(4), 310-317.

Vaterlaus, J. M., Barnett, K., Roche, C., & Young, J. A. (2016). “Snapchat is more personal”: An exploratory study on Snapchat behaviors and young adult interpersonal relationships. *Computers in Human Behavior, 62*, 594-601.

Velasco, A. A., Santa Cruz, I. S., Billings, J., Jimenez, M., & Rowe, S. (2020). What are the barriers, facilitators and interventions targeting help-seeking behaviours for common mental health problems in adolescents? A systematic review. *BMC Psychiatry, 20*(1), 1-22.

Vélez, C. E., Krause, E. D., McKinnon, A., Brunwasser, S. M., Freres, D. R., Abenavoli, R. M., & Gillham, J. E. (2016). Social support seeking and early adolescent depression and anxiety symptoms: The moderating role of rumination. *The Journal of Early Adolescence, 36*(8), 1118-1143.

Vitak, J., & Ellison, N. B. (2013). 'There's a network out there you might as well tap': Exploring the benefits of and barriers to exchanging informational and support-based resources on Facebook. *New Media & Society, 15*(2), 243-259.

Vogel, D. L., Wade, N. G., & Haake, S. (2006). Measuring the self-stigma associated with seeking psychological help. *Journal of Counseling Psychology, 53*(3), 325-337.

Vogel, D. L., Wester, S. R., Wei, M., & Boysen, G. A. (2005). The role of outcome expectations and attitudes on decisions to seek professional help. *Journal of Counseling Psychology, 52*(4), 459-470.

Waddell, T. F. (2016). The allure of privacy or the desire for self-expression? Identifying users' gratifications for ephemeral, photograph-based communication. *Cyberpsychology, Behavior, and Social Networking, 19*(7), 441-445.

Warner, E. L., Ellington, L., Kirchhoff, A. C., & Cloyes, K. G. (2018). Acquisition of social support and linguistic characteristics of social media posts about young adult cancer. *Journal of Adolescent & Young Adult Oncology, 7*(2), 196–203.

White, M., & Dorman, S. M. (2001). Receiving social support online: implications for health education. *Health Education Research, 16*(6), 693-707.

Wiljer, D., Abi-Jaoude, A., Johnson, A., Ferguson, G., Sanches, M., Levinson, A., ... & Cleverley, K. (2016). Enhancing self-efficacy for help-seeking among transition-aged youth in postsecondary settings with mental health and/or substance use concerns, using

crowd-sourced online and mobile technologies: The Thought Spot protocol. *JMIR Research Protocols, 5*(4), Article e201.

Williams, S. L., & French, D. P. (2011). What are the most effective intervention techniques for changing physical activity self-efficacy and physical activity behaviour—and are they the same?. *Health Education Research, 26*(2), 308-322.

Williams, J. G., & Kleinfelter, K. J. (1989). Perceived problem-solving skills and drinking patterns among college students. *Psychological Reports, 65*(3_suppl2), 1235-1244.

Williams, S. L., & Mickelson, K. D. (2008). A paradox of support seeking and rejection among the stigmatized. *Personal Relationships, 15*(4), 493-509.

World Health Organization. (2013). Mental health action plan 2013-2020. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/89966/9789241506021_eng.pdf?sequence=1&isAllowed=y

World Health Organization. (2017). Depression and other common mental disorders: Global health estimates (No. WHO/MSD/MER/2017.2). World Health Organization. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/254610/WHO-MSD-MER-2017.2-eng.pdf?sequence=1

World Health Organization. (2019a). Mental disorders. Retrieved from https://www.who.int/news-room/fact-sheets/detail/mental-disorders

World Health Organization. (2019b). The WHO special initiative for mental health (2019-2023): Universal Health Coverage for Mental Health (No. WHO/MSD/19.1). World Health Organization. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/310981/WHO-MSD-19.1-eng.pdf?ua=1

World Health Organization (2021). WHO Coronavirus (COVID-19) Dashboard. Retrieved from

https://covid19.who.int

Wörfel, F., Gusy, B., Lohmann, K., Töpritz, K., & Kleiber, D. (2016). Mental health problems among university students and the impact of structural conditions. *Journal of Public Health, 24*(2), 125–133.

Wright, K. (2002). Social support within an on-line cancer community: An assessment of emotional support, perceptions of advantages and disadvantages, and motives for using the community from a communication perspective. *Journal of Applied Communication Research, 30*(3), 195-209.

Wright, K. B. (2012). Emotional support and perceived stress among college students using Facebook. com: An exploration of the relationship between source perceptions and emotional support. *Communication Research Reports, 29*(3), 175-184.

Wright, K. B. (2016a). Communication in health-related online social support groups/communities: A review of research on predictors of participation, applications of social support theory, and health outcomes. *Review of Communication Research, 4*, 65-87.

Wright, K. (2016b). Social networks, interpersonal social support, and health outcomes: A health communication perspective. *Frontiers in Communication, 1*, 10-15.

Wright, K. B., & Rains, S. A. (2013). Weak-tie support network preference, health-related stigma, and health outcomes in computer-mediated support groups. *Journal of Applied Communication Research, 41*(3), 309-324.

Wright, K. B., Rosenberg, J., Egbert, N., Ploeger, N. A., Bernard, D. R., & King, S. (2013). Communication competence, social support, and depression among college students: A

model of Facebook and face-to-face support network influence. *Journal of Health Communication, 18*(1), 41-57.

Xiao, Z., Li, X., Qiao, S., Zhou, Y., & Shen, Z. (2017). Social support, depression, and quality of life among people living with HIV in Guangxi, China. *AIDS Care*, *29*(3), 319-325.

Xie, D., & Xie, Z. (2019). Adolescents' online anger and aggressive behavior: Moderating effect of seeking social support. *Social Behavior and Personality: An international journal, 47*(6), 1-9.

Xiong, J., Lipsitz, O., Nasri, F., Lui, L. M., Gill, H., Phan, L., ... & McIntyre, R. S. (2020). Impact of COVID-19 pandemic on mental health in the general population: A systematic review. *Journal of Affective Disorders, 277*, 55-64.

Xu, Z., Huang, F., Koesters, M., Staiger, T., Becker, T., Thornicroft, G., & Ruesch, N. (2018). Effectiveness of interventions to promote help-seeking for mental health problems: Systematic review and meta-analysis. *Psychological Medicine, 48*(16), 2658-2667.

Yang, Q. (2020). Understanding computer-mediated support groups: A revisit using a meta-analytic approach. *Health Communication, 35*(2), 209-221.

Yuh, J., & Choi, S. (2017). Sources of social support, job satisfaction, and quality of life among childcare teachers. *The Social Science Journal, 54*(4), 450-457.

Zhai, Y., & Du, X. (2020). Mental health care for international Chinese students affected by the COVID-19 outbreak. *The Lancet Psychiatry*, *7*(4), e22.

Zhang, R. (2017). The stress-buffering effect of self-disclosure on Facebook: An examination of stressful life events, social support, and mental health among college students. *Computers in Human Behavior, 75*, 527-537.

Zhao, N., & Zhou, G. (2020). Social media use and mental health during the covid-19 pandemic: Moderator role of disaster stressor and mediator role of negative affect. *Applied Psychology: Health and Well-Being*. (Early view / Online version of record before inclusion in an issue) Retrieved from https://iaap-journals.onlinelibrary.wiley.com/doi/10.1111/aphw.12226

Zhong, B., Huang, Y., & Liu, Q. (2020). Mental health toll from the coronavirus: Social media usage reveals Wuhan residents' depression and secondary trauma in the COVID-19 outbreak. *Computers in Human Behavior*, *114*, Article 106524.

Zhu, D. H., Sun, H., & Chang, Y. P. (2016). Effect of social support on customer satisfaction and citizenship behavior in online brand communities: The moderating role of support source. *Journal of Retailing and Consumer Services, 31*, 287-293.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment, 52*(1), 30-41.

Zimmer-Gembeck, M. J., & Skinner, E. A. (2011). Review: The development of coping across childhood and adolescence: An integrative review and critique of review. *International Journal of Behavioral Development, 35*, 1–17.

Zochil, M. L., & Thorsteinsson, E. B. (2018). Exploring poor sleep, mental health, and help-seeking intention in university students. *Australian Journal of Psychology, 70*(1), 41-47.

APPENDICES

Appendix A

Recruitment Email for the Study

Subject Line: Dissertation Research on College Students' Mental Health and Social Support Behavior on Social Media

Dear Students:

My name is Dilan Sinem Basaran. I am a PhD student at Georgia State University. I am conducting a research study on college students' mental health and social support behavior on social media. As part of this research study, I am carrying out a survey using this online questionnaire. Participating in this study will take about 20 minutes. Please first read the Consent Form. If you agree to participate in this survey, you will receive extra course credit (1% of the points in this course) for your participation.

I would appreciate very much if you could take 20 minutes from your busy schedule to complete this online questionnaire. This research study will help us understand what drive college students' mental health support seeking behavior on social media. The survey is available at:

If you have any questions regarding this study, please contact me at dbasaran1@gsu.edu Thank you so much for your assistance.

Dilan Sinem Basaran

Appendix B

Georgia State University

Department of Communication

Informed Consent

Title: College Students' Mental Health and Social Support Behavior on Social Media

Principal Investigator: Cynthia A. Hoffner

Student Principal Investigator: Dilan Sinem Basaran

Procedures

You are being asked to take part in a research study. If you decide to take part, you will complete an online survey on Qualtrics. Your role in the study will last about 20 minutes over on a single day. When you click the "I Agree" below, you will be directed to the first page of the survey. You may take the survey only once. The survey addresses college students' mental health and social support behavior on social media, as well as life experiences and background characteristics. No identifying information will be associated with your survey responses.

Compensation

For participating in the study, you will receive extra credit in ONE course. One (1) percent of the total points available in the course will be given to you. For this purpose, you will be asked to enter your name and course information on a separate survey link at the end of the research survey. This information will be stored separately from your survey responses.

If you decide not to participate in the study, or are younger than 18, you can still earn the extra credit. You can also earn extra credit in a second participating course. You can do this by completing an alternative extra credit assignment. For this assignment, you will write a 1-page paper about how your class helps prepare you for the career you want to pursue. To take advantage of this option, please notify the Student Principal Investigator before the study is closed. She will send you instructions by email.

Voluntary Participation and Withdrawal

You do not have to be in this study. You may skip survey questions or stop participating at any time. Whatever you decide, you will not lose any benefits to which you are otherwise entitled.

Contact Information

Contact the Principal Investigator Dr. Cynthia Hoffner at 404-413-5650 and choffner@gsu.edu or the Student Principal Investigator Dilan Sinem Basaran at dbasaran1@gsu.edu

Consent

If you wish to keep a copy of this consent form, please print a copy.

If you are over 18 and willing to volunteer for this research, please start the survey by clicking "I Agree" below.

I Agree I Decline

Appendix C

List of Measures for the Study

Measure of Social Support Seeking Behavior on Social Media (Norberg et al., 2006)

Please indicate how often you do each of the items listed below on social media (for example, on Facebook, Twitter, Instagram, Snapchat, or TikTok) based on a 5-point scale ranging from (1) never to (5) always:

1. I share my worries with others through social media postings (texts/ photos/videos).
2. I ask others for help through social media postings (texts/ photos/videos).
3. I show my feelings through social media postings (texts/ photos/videos).
4. I seek comfort and understanding from others through social media postings (texts/ photos/videos).
5. I let it be seen through social media postings (texts/ photos/videos) that something is worrying me.
6. I discuss my problems with my friends through social media postings (texts/ photos/videos).

Measure of College Student's Stressful Event Checklist (Arizona State University, n.d.; Ellis et al., 2020; Holmes & Rahe, 1967)

Please choose the events that have occurred in your life in the past year.

1. Death of a close family member
2. Death of a close friend
3. Divorce between parents
4. Serious legal problems
5. Major personal injury or illness
6. Responsibilities for others, such as children/spouse
7. Threat to major source of income
8. Difficulty with roommate(s)
9. Change in health of a family member
10. Pregnancy
11. Sexual problems
12. Serious disagreements with parents
13. Change in lifestyle for financial reasons
14. Difficulty in identifying a major
15. Serious argument with close family member
16. Problems with a girlfriend or boyfriend
17. Having to repeat a course
18. Increased workload at school
19. Outstanding personal achievement
20. First semester in college
21. Change in living conditions

22. Serious disagreements with an instructor
23. Lower grades than expected
24. Change in sleeping habits
25. Change in social habits
26. Change in eating habits
27. Chronic car problems
28. Change in number of family get togethers
29. Too many missed classes
30. Change in plans for a major
31. Dropped more than one class
32. Minor traffic violations
33. Had Covid-19
34. Close family member/s had Covid-19
35. Close friend/s had Covid-19
36. Negative impact on studies due to the Covid-19 pandemic
37. Negative impact on my own or my family's finances due to the Covid-19 pandemic
38. Negative impact on my feeling of being connected to my friends due to the Covid-19 pandemic

Measure of Emotional Well-Being (Diener et al., 2010)

Please indicate how often you have been experiencing each of the following emotions over the last two weeks, based on a 5-point scale ranging from (1) none of the time to (5) all of the time:

1.____Positive
2. ____Negative
3.____Good
4.____Bad
5.____Pleasant
6.____Unpleasant
7.____Happy
8.____Sad
9.____Afraid
10.____Joyful
11.____Angry
12.____Contented

Measure of Self-Efficacy in Performing Help-Seeking Behaviors (King et al., 2011)

Please indicate the extent to which you agree or disagree with the following statements, based on a 5-point scale ranging from (1) strongly disagree to (5) strongly agree:

1. I feel confident I can use positive coping skills to handle problems.
2. I feel confident that I can manage my feelings in a safe way.
3. I feel comfortable talking to my family and/or significant other about my problems.
4. I feel comfortable talking to my friends about my problems.

Measure of Expected Positive and Negative Outcomes of Social Support Seeking on Social Media (Bandura 1986; 2004; Hoffner, 2017)

Below are some statements about how you expect others to respond when you seek support on social media. Please indicate the extent to which you agree or disagree with the following statements, based on a 5-point scale ranging from (1) strongly disagree to (5) strongly agree:

1. Others will offer empathy understanding.
2. Others will give advice about my situation.
3. Others will provide caring and emotional support.
4. Others will share feedback to help me look at things in a more positive way.
5. I will feel connected to others.
6. I will feel accepted by others.
7. I will feel better about myself.
8. Others will challenge me.
9. Others will minimize or question the legitimacy of my sadness.
10. Others criticize me.
11. Others will provide negative/unsupportive feedback.
12. I will feel disconnected.
13. I will feel rejected by others.
14. I will feel worse about myself.

Measure of Perceived Public Stigma (Corrigan et al., 2006; van't Veer et al., 2006)

Please indicate the extent to which you agree or disagree with each statement about public beliefs about people with mental illness, based on a 5-point scale ranging from (1) strongly disagree to (5) strongly agree:

I think the PUBLIC believes that most people with mental illness:

1. Cannot be trusted.
2. Are dangerous.
3. Are unable to take care of themselves.
4. Are to blame for their problems.
5. Are not able to maintain a regular job.
6. Will not recover or get better.
7. Are below average in intelligence.
8. Are unpredictable.
9. Tend to cause disturbances/inconveniences.

Measure of Self-Stigma (Corrigan et al., 2006; van't Veer et al., 2006)

Many people experience mental illness at different times in their lives. For the following items, consider how you would feel about yourself if you experienced mental illness in the next year. Please indicate the extent to which you agree or disagree with the following statements, based on a 5-point scale ranging from (1) strongly disagree to (5) strongly agree:

If I experienced mental illness in the next year:
1. I would view myself as dangerous.
2. I would be unpredictable.
3. I would be unable to take care of myself.
4. I would blame myself for my problems.
5. I would view myself as untrustworthy.
6. I would view myself as below average in intelligence.
7. I would not be able to maintain a regular job.
8. I would not recover or get better.
9. I would tend to cause disturbances/inconveniences.

Measure of Social Media Use (Rosen et al., 2013)

Please indicate how frequently you use Facebook, based on a 5-point scale ranging from (1) never to (5) always:
(If you do not use Facebook at all, please choose "Never" for the first question)

1. How often do you use Facebook?
2. How often do you look at Facebook postings?
3. How often do you post texts/photos/videos on Facebook?

Please indicate how frequently you use Twitter, based on a 5-point scale ranging from (1) never to (5) always:
(If you do not use Twitter at all, please choose "Never" for the first question)

1. How often do you use Twitter?
2. How often do you look at Twitter postings?
3. How often do you post texts/photos/videos on Twitter?

Please indicate how frequently you use Instagram, based on a 5-point scale ranging from (1) never to (5) always:
(If you do not use Instagram at all, please choose "Never" for the first question)

1. How often do you use Instagram?
2. How often do you look at Instagram postings?
3. How often do you post photos/videos on Instagram?

Please indicate how frequently you use Snapchat, based on a 5-point scale ranging from (1) never to (5) always:
(If you do not use Snapchat at all, please choose "Never" for the first question)

1. How often do you use Snapchat?
2. How often do you look at Snapchat postings?
3. How often do you post photos/videos on Snapchat?

Please indicate how frequently you use TikTok, based on a 5-point scale ranging from (1) never to (5) always:
(If you do not use TikTok at all, please choose “Never” for the first question)

1. How often do you use TikTok?
2. How often do you look at TikTok postings?
3. How often do you post videos on TikTok?

Social Media Use for Mental Health Support
Social support refers to material, informational, emotional, and psychological resources obtained by one’s social network, such as family, significant others, friends, acquaintances, and online/social media friends. There are many ways that people may seek social support on social media, such as posting text or photos/videos that express their feelings, problems, or stressful life events, or posting text or photos/videos that directly ask for help/guidance or support.

Please indicate how often YOU seek social support for mental health issues by posting on each of the following social media platforms/apps, based on a 5-point scale ranging from (1) never to (5) always: (If you do not use a platform/app at all, please choose "Never")

1. Facebook
2. Twitter
3. Instagram
4. Snapchat
5. TikTok

Please indicate how often you see OTHER PEOPLE seek social support for mental health issues by posting on each of the following social media platforms/apps, based on a 5-point scale ranging from (1) never to (5) always:
(If you do not use a platform/app at all, please choose "Never")

1. Facebook
2. Twitter
3. Instagram
4. Snapchat
5. TikTok

Please select the social media platform/app that YOU use the most for seeking social support for mental health issues.

1. Facebook
2. Twitter
3. Instagram
4. Snapchat
5. TikTok
6. Other (please specify_____)
7. None

Background Characteristics

Demographic Measures

Please indicate your sociodemographic information:

1. What is your gender?
__Male
__Female
__Non-binary
__Other (please specify_____)
__Prefer not to say

2. How old are you?
_____

3. What is your ethnicity? Please mark all that apply.
__Asian/Pacific Islander
__Black/African American
__Hispanic/Latino
__Native American
__White/Caucasian
__Other (please specify_____)
__Prefer not to say

4. What is your year in college?
__Freshman
__Sophomore
__Junior
__Senior

5. What is your major?
_____

Personal Experience with Mental Health Issues

Please indicate whether you have been diagnosed or treated for a mental health condition.

1.____Depression
2.____Anxiety disorder
3.____Eating disorder
4.____Bipolar disorder
5.____Post-traumatic stress disorder
6.____Other (please specify)
7. ____Prefer not to say

Please indicate whether you have health insurance for / access to affordable mental health care.

1.____Yes
2.____No
3.____Do not know

Overall Social Media Use

Please indicate how often you use ANY form of social media (such as Facebook, Twitter, Instagram, Snapchat, TikTok, LinkedIn, YouTube, Pinterest).

1.____Never
2.____Rarely
3.____Sometimes
4.____Often
5.____Always
6.____Prefer not to say

Open-Ended Questions about Social Support

Please describe your experience with seeking and receiving online social support related to mental health issues during COVID-19 pandemic. For example, this could include social support you sought/received on social media or in online groups.
(Please do NOT use any identifying information or names of yourself or others)

_____

Please describe your experience with seeking and receiving offline social support related to mental health issues before and during COVID-19 pandemic. For example, this could include social support you sought/received from people in person or via phone or texting.
(Please do NOT use any identifying information or names of yourself or others)

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Measures Not Used in This Dissertation but Included for Future Research

Measure of Mental Well-Being (Tennant et al., 2007)

Please indicate how often you have been experiencing each over the last two weeks, based on a 5-point scale ranging from (1) none of the time to (5) all of the time:

1. I have been feeling optimistic about the future.
2. I have been feeling useful.
3. I have been feeling relaxed.
4. I have been feeling interested in other people.
5. I have had energy to spare.
6. I have been dealing with problems well.
7. I have been thinking clearly.

8. I have been feeling good about myself.
9. I have been feeling close to other people.
10. I have been feeling confident.
11. I have been able to make up my own mind about things.
12. I have been feeling loved.
13. I have been interested in new things.
14. I have been feeling cheerful.

Measure of Perceived Offline Social Support (Zimet et al., 1988)

Please indicate the extent to which you agree or disagree with the following statements, based on a 5-point scale ranging from (1) strongly disagree to (5) strongly agree:

1. There is a special person who is around when I am in need.
2. There is a special person with whom I can share my joys and sorrows.
3. My family really tries to help me.
4. I get the emotional help and support I need from my family.
5. I have a special person who is a real source of comfort to me.
6. My friends really try to help me.
7. I can count on my friends when things go wrong.
8. I can talk about my problems with my family.
9. I have friends with whom I can share my joys and sorrow.
10. There is a special person in my life who cares about my feelings.
11. My family is willing to help me make decisions.
12. I can talk about my problems with my friends.

Measure of Perceived Online Social Support (Zimet et al., 1988)

Please indicate the extent to which you agree or disagree with the following statements, based on a 5-point scale ranging from (1) strongly disagree to (5) strongly agree:

1. I can find help on social media.
2. I can find the emotional help and support that I need on social media.
3. I can communicate with someone on social media about my problems.
4. I can find someone on social media that helps me make decisions.