DISCUSSING MENTAL HEALTH ONLINE: HOW CONTENT OF SUPPORT-SEEKING
DISCLOSURE STRATEGIES INFLUENCES THE TYPES AND CHARACTERISTICS OF
SOCIAL SUPPORT OFFERED IN A DEPRESSION HELP SUBREDDIT

By

Brandon M. Walling

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

Communication – Doctor of Philosophy

2021

ABSTRACT

DISCUSSING MENTAL HEALTH ONLINE: HOW CONTENT OF SUPPORT-SEEKING
DISCLOSURE STRATEGIES INFLUENCES THE TYPES AND CHARACTERISTICS OF
SOCIAL SUPPORT OFFERED IN A DEPRESSION HELP SUBREDDIT

By

Brandon M. Walling

Social support research has found that individuals who experience symptoms of mental illness might not receive the support they desire without some sort of support-seeking. This is important because individuals who receive more effective support are less likely to continue experiencing symptoms associated with mental illness compared to individuals who receive less effective support. Previous research has suggested that support-seeking strategies used by distressed individuals might influence the type and characteristics of social support offered. In order to test hypotheses and research questions related to a model about the disclosure and support-seeking processes, and the subsequent support provision process, the current study developed a content analysis coding protocol and applied it to initial posts and comments in an online depression help group. Initial posts were categorized into different types of content (e.g., self- harm, treatment, discussion, other) and support sought. Response comments to initial posts were categorized into different types (e.g., informational, emotional, esteem, tangible, network) and characteristics of social support (e.g., confirming, disconfirming, neutral), and the effect of support-seeking content and strategies on support offered was analyzed. Findings show that content of initial post messages influenced responses received in comments, which supported previous research demonstrating that support providers in both informal and formal systems

often use neutral message characteristics that are neither confirming or disconfirming when they do not know effective strategies for responding to more serious mental health issues. Further, support offered matched support-seeking, as there were significant associations between the types of support sought in initial posts and the types of support offered via comments in response to those posts. Results extend research in disclosure as one type of support-seeking strategy and on the effect of different support-seeking strategies on the type of support offered in the context of discussing mental health online. This has theoretical implications for the support process and practical implications for responding to people who seek help for mental health issues.

Keywords: mental health communication, social support, disclosure.

ACKNOWLEDGEMENTS

This dissertation is a product of the work that has been made possible by the opportunities that I have been fortunate to have been given during my nine years on campus at Michigan State University. My time in East Lansing will always be important to me, and I will always remember my Spartan Family, and I will always bleed green.

To get to MSU, I was blessed with the best teachers and mentors: from Fox Tots, West Maple Elementary, Birmingham Covington Middle School, and Groves High School, there have been so many people that have impacted my educational journey that led me to East Lansing.

During my undergraduate education, professors like Dr. Steve McCornack and Dr. Ron Tamborini showed me the possibilities of studying communication. As a URA, I was involved with Honors options and got my feet wet in the research team process, with your guidance.

As I began graduate school, my advisor, Dr. Sandi W. Smith really took me under her wing to teach me how to be a communication scientist and researcher. By challenging me with different tasks on research teams, motivating me to try new things, and encouraging me to submit my work to conferences, I began to grow into a health communication researcher. You brought me to my first conference, DCHC in 2015, which ended up solidifying my decision to continue at MSU and work toward my Ph.D. Sandi has been an amazing mentor, a great advisor, and an even better friend to me during my time at MSU and I will always be grateful for everything she has done for me both as a scholar and as a person.

All my roommates and friends that put up with my long hours of writing and studying and were there for me whenever I needed to step away and take a break for some fun. Jake has been my best friend since our first day on campus, and has been right with me through it all.

During my MA program, Dr. Tamborini and Dr. Kami Silk were influential to help me learn how to contribute to research teams in different ways, and ultimately, how to be a leader on those types of teams. Other graduate students that helped me get through the first few years of graduate school, like Dr. Lindsay Hahn, Dr. Katelyn Grayson-Sneed, Dr. Daniel Totzkay, Dr. Jeff Cox, Dr. Eric Novotny, Dr. Clare Grall, and all the people that made me feel like a part of the family in the department of communication, including Marge and Thomi who are two of the best people in the world. I went through a host of personal struggles throughout my time in graduate school, and my COM family was always there when I needed them most.

My officemate, Dr. Kevin Kryston, who was there for me throughout the entire five years we shared Room 454 in the Communication Arts and Sciences. In that little office we spent some of the most important moments together during my time at MSU: moments of struggle, moments of breakthrough and triumph, moments of growth in many shapes and forms. Thank you for always being a shoulder to lean on and an ear to listen to me.

To my mom, my little brother Josh, and my dad: thank you for being the loving family that I always knew was waiting for me at home. My weekends and time spent with you, away from campus, always made me appreciate what I was missing and always kept me wanting to come back. Thank you for reminding me that there is more to life than work, and for the countless battles on the tennis court.

Last but not least, to my beautiful girlfriend, Brittany, who has arguably had to put up with the most when it comes to my journey in graduate school. Thank you for your patience as I stayed up late past deadlines and kept you waiting as I finished writing, and for always showing me the love and support I needed to get me through the day.

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

According to the most recent National Survey on Drug Use and Health, in 2017, 17.3 million people ages 18 and older in the United States had at least one major depressive episode (7.1% of all U.S. adults) (National Institute of Mental Health, 2017). Of these individuals who experienced a major depressive episode, over 35% did not receive any treatment. Additionally, in 2017, 46.6 million people in the U.S. (one in five) suffered from some symptom of mental illness (U.S. Department of Health and Human Services, 2019). In fact, untreated mental illness is the leading cause for disability and the number one risk factor for suicide, which is the 10th leading cause of death in the U.S. (Arnaez et al., 2020). Despite the prevalence of mental health research demonstrating that many individuals experience symptoms of mental illness at some point in their lives (Brown & Harris, 1978), findings also demonstrate that many people do not receive the social support desired to treat or cope with their symptoms (Hefner & Eisenberg, 2009; Rubin et al., 2016; Whitley et al., 2016). In order to more deeply understand this issue, the current study aimed to explore the relationship between using different disclosure and social support-seeking strategies and obtaining different types of social support.

Social support is communication that is offered with the intent of aiding somebody who is perceived as needing the help offered (MacGeorge et al., 2011). Individuals who feel that they receive more effective social support from their support networks experience fewer symptoms of mental illness, whereas people who feel that they do not receive the level of support they desire are more likely to experience these symptoms (Brown & Harris, 1978; Dumont & Provost, 1999; Hefner & Eisenberg, 2009; High & Scharp, 2015; Koizumi et al., 2005; Lee & Cho, 2019; Rains & Young, 2009; Segrin, 2003; Uchino, 2004, 2009). Findings in social support research also suggest that individuals who desire support might not receive it without using some type of

support-seeking strategy (High & Scharp, 2015). Previous studies have measured support-seeking on continua from direct to indirect and from verbal to nonverbal (Barbee & Cunningham, 1995; Barbee et al., 1990; Collins & Feeney, 2000) and findings suggest that generally, effective support providers attempt to match the support they offer to their interpretation of the needs being suggested or implied, either directly or indirectly, by support-seekers (Cutrona & Suhr, 1992; Cutrona et al., 1990; Green-Hamann & Sherblom, 2014; Horowitz et al., 2000).

Functional approaches to studying social support consider the types of support offered to individuals in different distress situations (i.e., informational, emotional, esteem, tangible, and network) (Cohen, et al., 2000; Uchino, 2004, 2009). Additionally, the characteristics (i.e., confirming versus disconfirming nature) of support messages may influence different outcomes related to wellbeing for distressed individuals (Cissna & Sieburg, 1981; Dailey, 2006; Ellis, 2000; Reis & Shaver, 1988). Research has suggested that the ways in which distressed individuals seek social support could influence these aspects of the support that is offered to them (Barbee & Cunningham, 1995; Barbee et al., 1990; Collins & Feeney, 2000; High & Scharp, 2015). Some findings indicate that the characteristics of the life stressor (Cutrona & Suhr, 1992) or the content expressed in the support-seeking message, which may indicate the severity of the distress situation (Long et al., 2015), might also influence the support that is offered (Buehler et al., 2018; Oh & LaRose, 2016) and preliminary findings in the context of support offered to individuals in an online depression help group suggest that is the case (Walling, 2020). However, further research is necessary to understand the effect that the content about the life stressor and the support-seeking strategies used have on the support responses received for those that seek support in the context of mental health. Disclosure and support-

seeking about some topics compared to others (i.e., more versus less severe) might tend to receive different, perhaps more or less effective, responses.

The current study investigated the influence that content of support-seeking topics expressed in posts to an online depression help group had on the support-seeking strategies used in those messages. Further, the current study also explored the relationship between the support-seeking messages in initial posts and the types and characteristics of support messages offered in response via the comments. An overview of the literature on disclosure and other support-seeking strategies is presented, specifically in the context of seeking support online, followed by a review of work on optimal matching models of social support, highlighting the different types of support and other characteristics of support messages. Finally, a set of hypotheses and research questions is proposed regarding the relationships between the content of disclosure and support-seeking messages in initial posts to an online depression help group, the support-seeking strategies used, and the types and characteristics of support offered in responses.

Disclosure

Research indicates that self-disclosure, or sharing personal information that can be considered sensitive with others (Petronio, 2002), is a key step that leads to recovery and diagnosis for individuals with mental illness (Bell et al., 2011). The stereotypes and prejudices associated with experiencing symptoms of mental illness, however, may be especially salient to these individuals, which decreases the likelihood and effectiveness of disclosures about mental health (Frey & Fulginiti, 2017; Long et al., 2015; McClay, 2020; Rusch et al., 2014). Disclosers often feel vulnerable when sharing personal information (Petronio, 2002) because of the possibility of receiving negative reactions (Ahrens et al., 2009; Chaudoir & Fisher, 2010; Littleton, 2010; Park & Ammerman, 2020), and the assessment of this risk often predicts an

3

individual's likelihood of revealing information to others (Afifi & Steuber, 2009; Greene, 2009; Sunnafrank, 1998). Disclosure has also been studied as a component of support-seeking (Pan et al., 2018), however the support-seeking process is complex.

Sunnafrank's (1988) predicted outcome value (POV) theory suggested that individuals attempt to predict the valence of future conversational partners' responses, such as the reaction to a disclosure. According to the theory, individuals will decide to withhold sensitive information if they expect a negative reaction. More recent interpersonal communication research has focused on the role of the discloser and their assessments of their own efficacies, or confidence in their ability to communicate with others (Afifi, 2010). For example, the revelation risk model (RRM; Afifi & Steuber, 2009) proposed that individuals consider anticipated reactions of others and compare the risk of a negative reaction to the potential benefit of receiving a positive reaction to determine their willingness or confidence in their ability to share information and the strategies they use to disclose.

Greene's (2009) disclosure decision-making model (DD-MM) claims that individuals consider four types of information when making disclosure strategy decisions: assessment information (characteristics of the information to be disclosed), receiver information (regarding the relationship between discloser and confidant), disclosure efficacy (the discloser's confidence in their communication skills), and message enactment information (the details of the disclosure situation). The DD-MM proposes that individuals weigh these four kinds of information and anticipate the reactions of potential confidants, making predictions about the relationship between the different types of information in different disclosure contexts and disclosure outcomes. Generally, findings from the DD-MM show that individuals are more likely to use direct disclosure strategies if disclosure efficacy is high, but disclosure efficacy decreases as

assessment information and recipient information leads the discloser to anticipate negative

reactions. An example of assessment information is the stigma that might be associated with the

personal information being disclosed, which decreases likelihood of disclosure (Long et al.,

2015; McClay et al., 2020; Park & Ammerman, 2020).

Recent research on the DD-MM has extended the model to nonvisible, stigmatized

identifies (Choi et al., 2016) and specifically to the context of disclosing mental illness

information (Venetis et al., 2017). Findings support previous research in that as perceived stigma

of the nonvisible identity increases, disclosure efficacy decreases, and individuals are more likely

to use indirect disclosure strategies or to not disclose at all. While research indicates that

encouraging individuals to disclose their symptoms of mental illness is an effective direct

strategy to address the symptoms (Bell et al., 2011), findings show that the possibility of

negative responses that can elicit feelings of embarrassment or shame make the decision to

disclose this type of personal information especially hard for individuals experiencing these

potentially stigmatizing symptoms (Ahrens et al., 2009; Chang & Bazarova, 2016; Chaudoir &

Fisher, 2010; Park & Ammerman, 2020). People who experience more severe symptoms of

mental illness, such as self-harm attempts or actual self-injury, may, however, be particularly

accustomed to receiving negative disclosure reactions, even from formal treatment systems and

medical professionals (Dobransky, 2018; Littleton, 2020; Longden & Proctor, 2012; Pescosolido,

2013; Ullman, 2000). The motivations or intentions behind offering these kinds of disconfirming

or neutral responses is unclear, however, recent research has indicated that some mental health

care providers experience a "compassion fatigue" (Bell et al., 2019; Ledoux, 2015; Rossi et al.,

2012; Thompson et al., 2014). This can make the decision to disclose especially difficult for

individuals who experience severe symptoms of mental illness and makes disclosure less likely

to occur within formal systems, like in clinical or medical settings staffed by professionals, and more likely to occur within informal social support networks (Long et al., 2015; McClay, 2020).

Social Support

Social support is defined as "verbal and nonverbal behavior produced with the intention of providing assistance to others perceived as needing that aid" (p. 317; MacGeorge et al., 2011). Research in social support typically investigates the different aspects of supportive contexts that can influence support-seeking and support provision behavior in different situations (Burleson, 1985). Examples of these features are the types of social support (Burleson, 2003; MacGeorge et al., 2011) and the confirming or disconfirming characteristics of the support offered (Cissna & Sieburg, 1981; Dailey, 2006; Ellis, 2002; Reis & Shaver, 1988) in response to the support-seeking strategies used by distressed individuals (Barbee & Cunningham, 1995; Barbee et al., 1990; Collins & Feeney, 2000; Goldsmith, 2000).

Support-Seeking

Literature on social support has demonstrated that soliciting support from others can be inherently face-threatening (Brown & Levinson, 1987; Dobs & Blitvich, 2013; Floyd & Ray, 2017; Goffman, 1967), and support-seekers often feel a sense of intrusion on the other person and a cost to the relationship when they ask for help (Goldsmith, 2000). Barbee and colleagues (1990) proposed a model of interactive support-seeking to understand costs perceived with seeking support, including loss of self-control, loss of self-esteem, inequity in relationships, and feeling guilty about bothering the other person. Barbee and Cunningham (1995) elaborated on the interactive model of support-seeking, measuring support-seeking strategies along two dimensions: direct to indirect, and verbal to nonverbal. Whereas the verbal and nonverbal dimension is relevant for face-to-face interpersonal interactions, other types of social support-

seeking, such as via computer-mediated communication, such as in online support groups, the direct/indirect dimension captures disclosure and support-seeking across both verbal and nonverbal channels.

Collins and Feeney (2000) took the support-seeking model further, expanding on the direct versus indirect dimension. Direct strategies include behavior like explicitly asking for help and giving details about the problem at hand, whereas indirect strategies include complaining about situations or hinting about existing problems without specifically asking for help or making it clear that help is desired (Barbee & Cunningham, 1995; Collins & Feeney, 2000). In this context, support-seeking strategies, such as the direct or indirect nature of the support-seeking attempt or the type of support sought, might influence the social support offered in response. Some findings indicate that direct strategies are more likely to yield emotional social support and indirect strategies are more likely to yield avoidant responses (Williams & Mickelson, 2008). Other research has demonstrated that direct strategies yield more informational support and indirect strategies yield more emotional support (Wang et al., 2015) but has indicated that the content of the disclosure in support-seeking messages might have an effect on the nature of the supportive messages offered in response, especially in the context of disclosures related to mental health (Walling, 2020).

Content of Support-Seeking Messages

Whereas previous studies that investigated support-seeking used a direct to indirect continuum (Barbee & Cunningham, 1995; Collins & Feeney, 2000), other research on support-seeking has indicated that in addition to style (i.e., direct vs. indirect), the variations in the content, such as differences in the seriousness of the issues expressed in support-seeking attempt messages, might influence the support offered (Buehler et al., 2019; Dunkel-Schetter & Skokan,

1990; Oh & LaRose, 2016). In the context of the current study, the content discussed in the support-seeking messages in initial posts might influence the types and characteristics of social support offered in response comments, for example, initial posts that seek support related to more severe issues, like thoughts about self-harm, might receive comments with different types and characteristics of support compared to initial posts about less severe topics, like posts that vaguely discuss life events.

Previous studies have examined the effect that message content and the seriousness of the problem at hand have on the support offered in response to those situations (Dunkel-Schetter & Skokan, 1990; Littleton, 2010; Longden & Proctor, 2012; MacGeorge et al., 2016; McClay et al., 2020). Findings demonstrate that support providers adapt their strategies for offering social support depending on their perceptions of the seriousness of the distressed individual's problem and that the content and topics of support-seeking messages influence the nature of support provided to those individuals, indicating that the match between the support offered and the preferences of the support provider may determine the effectiveness of support message (Cutrona & Suhr, 1992; 1994). However, life stressors are complex, and without the appropriate details support providers are left with ambiguity when it comes to determining the best support to offer support-seekers to best accomplish their goals.

Social support research indicates that a distressed individual might not receive social support unless they seek it (High & Scharp, 2015). Further, support-seeking has been shown to influence whether or not support is received, and the types of support offered (MacGeorge et al., 2011). Indirect support-seeking allows support-seekers to keep their issues only partially disclosed, but indirect strategies are often vague, which limits the ability for support providers to help (Barbee et al., 1998). By directly seeking support, individuals indicate to others that they

need their help (Goldsmith, 2000), which may include disclosure about the distressful situation to convey their experience (Burleson & Goldsmith, 1996).

However, studies on support-seeking strategies have demonstrated that support-seekers often experience a sense of vulnerability because of the range of different potential responses and the perceived imposition on the other person, which reduces the likelihood of direct support-seeking (Barbee et al., 1990; Goldsmith, 2000). Especially when the nature of the support-seeking issue is related to more serious distress, disclosing this kind of information may be potentially stigmatizing (Ahrens et al., 2009; Choi et al., 2016; Littleton, 2010; Park & Ammerman, 2020; Venetis et al., 2017). Previous research has noted the importance of improving willingness to seek treatment for mental illness (Arnaez et al., 2020), indicating that more work is necessary to understand the differences in the ways that individuals seek support and the strategies that support providers use to respond regarding different content categories, like seeking treatment versus reporting thoughts about self-harm. The content of support-seeking may greatly influence the support-seeking and support provision processes, for example, individuals who disclose that they are considering seeking treatment via formal medical systems might receive different types of reactions compared to individuals who report receiving negative reactions to disclosures about self-injury (McClay et al., 2020; Overstreet et al., 2019). One strategy to cope with the vulnerability and potential risk of disclosing potentially stigmatizing information to known others is to seek online groups to disclose to via computer-mediated communication in online contexts as opposed to in face-to-face interactions. A goal of the current study is to examine the role that the content of disclosure and other support-seeking messages have on social support offered in the context of initial posts and comments offered in response to an online depression help group.

Disclosure and Social Support-Seeking Online

The internet presents a large network of people, with diverse backgrounds, who would primarily otherwise not have the opportunity to connect with each other (Green-Hamann & Sherblom, 2014). Online mediums provide individuals that might be uncomfortable discussing certain sensitive personal issues in face-to-face conversations with people they know or in other, more public contexts, with a platform that allows them to maintain certain levels of personal privacy, and often the option to remain anonymous. Further, the increased reach makes it easier for individuals to find people that are coping with similar problems (Wright & Bell, 2003).

Recent research has demonstrated that a large number of people use the Internet to access social support via online communities (Mehta & Atreja, 2015; Rains & Young, 2009; Wang et al., 2015; Yip, 2019). Features of online communities, like asynchrony of communication and larger geographic reach, allow for the "convenience and continuity" (Mehta & Atreja, 2015) of larger support networks with more diverse ranges and sources of health information (Wright & Bell, 2003). One study (Yip, 2019) compared the use of indirect and direct requests in online communities, finding that online users are often more indirect than direct when discussing mental health within online support groups. The authors noted that one reason for this finding might be that people who post online may only intend to narrate their problems without anticipating the social support they could potentially receive subsequently from others in the comments. Additionally, Wang and colleagues (2015) showed that support-seekers use two prominent strategies in online communities, asking questions and self-disclosure, in order to express to others that support is desired.

Specifically in the context of mental illness, a meta-analysis (Rains & Young, 2009) demonstrated that online social support communities increase positive health outcomes,

including reduced symptoms of depression. The increased anonymity and privacy of the online context increases positive elements of the disclosure process, like confidentiality and willingness to disclose, while decreasing other, negative elements, like feelings of social isolation or the potential for stigmatization (Green-Hamann & Sherblom, 2014), which decreases perceived risk for support-seekers. This is especially important for individuals seeking support for potentially stigmatized identities (Frey & Fulginiti, 2019; Park & Ammerman, 2020), as individuals report less stigma online versus in face-to-face interactions (Wright, 2000). This complex nature of the support-seeking decision-making process increases the desirability and likelihood of seeking help online, especially for stigmatized issues (Littleton, 2010; Long et al., 2015; McClary et al., 2020).

These findings add to the field of mental health communication, but further research is necessary in order to understand the effect that different support-seeking strategies may have on the social support offered, especially in the context of individuals seeking support related to their mental health. Recent research in mental health communication has highlighted the importance of improving willingness to seek treatment for mental illness (Arnaez et al., 2020). One Internet platform that individuals use to seek social support related to their mental health and that shows the responses to these requests is Reddit (Costello et al., 2017; Sowles et al., 2017).

Reddit

Reddit (Reddit, 2020) is a social networking site for users to read, post, or share various content, media, or news (www.Reddit.com/about/) (Sowles et al., 2017). Reddit has over 430 million average monthly active users, is the fifth most-visited site in the United States, and has over 130,000 active communities, called subReddits (Reddit, 2020). Reddit has been utilized for research to investigate how individuals seek social support and encouragement, or for access to

health information related to topics such as: e-cigarette use (Wang et al., 2015; Zhan et al., 2019); fathers' concerns about their daughters' pregnancies (Pilkington & Rominov, 2017); disclosure about victim-survivorship (O'Neill, 2018); opioid use disorder recovery (D'Agostino et al., 2017); social support received after disclosure about substance abuse (Costello et al., 2017; Sowles et al. , 2017); and how individuals express and share their experiences about mental illness (Sharma et al., 2017; Wang et al., 2015) among other topics. Reddit provides a unique environment to explore the disclosure process from an interactional perspective because of the nature of the subReddits, which allow individuals to create initial posts and the rest of the community can respond directly to those initial posts with comments.

Typically, studies that use Reddit employ content analysis methodologies, creating coding schemata to examine data posted to reddit communities and to understand patterns of communication (Haythornthwaite et al., 2018). Some studies have explored the content posted on Reddit, looking for patterns between message features, like elaboration, length, or content, and different aspects of the responses offered, like the total number of comments or types of support offered (Chew et al., 2021; Costello et al., 2017; Park & Conway, 2018; Sowles et al., 2017; Tuomchomtam & Soonthornphisaj, 2019). Findings have demonstrated that individuals use Reddit to seek social support, often via self-disclosure within initial posts (Andalibi et al., 2018; Costello et al., 2017; O'Neill, 2018; Sowles et al., 2017) but further investigation is needed to understand the different disclosure and support-seeking strategies used on this type of online help platform, and the effect that those decisions have on the subsequent social support offered in response. These concepts have theoretical implications for the disclosure and support-seeking processes, and the social support provision process, as well as practical implications for

understanding the types of reactions that individuals who experience symptoms of mental illness typically receive when seeking social support related to their mental health.

One way in which Reddit is unique from other social media sites is the way that content is organized by topics, or communities, called "subReddits." These communities are often made for specific topics or interest areas, ranging from sports teams to political issues to cultural groups. Most subReddits have a set of rules and a group of moderators that filter posts according to the rules to maintain a level of order and attempt to keep out irrelevant or potentially harmful content. Users can post into subReddits by creating a username and creating an initial post onto the community page. Once posted, the rest of the subReddit community has the opportunity to respond to the post via commenting, or to respond to subsequent comments. Usernames can be completely anonymous, with no personal identifying information, or can be linked to personal pages, like other social media accounts.

r/Depression. One specific subReddit of relevance to the current study is called "r/Depression" (https://reddit.com/r/depression) (Reddit). r/Depression started on January 1, 2009 and has over 745,000 subscribed members (as of April 2021). The description on the homepage reads "peer support for anyone struggling with a depressive disorder." This subReddit provides a unique and beneficial platform for the current study, as it allows examination of the initial posts and the direct responses to them in the comments. The initial posts in r/Depression are typically composed of individuals' disclosures about their own experiences with symptoms of depression, seeking support, or simply looking for a place to discuss their mental health status and symptoms. For the purpose of this study, initial posts are conceptualized as support-seeking attempts, and direct comments to the initial posts are conceptualized as the support offered to the initial posters. Previous research has examined posts in r/Depression and found that there are

anywhere from 200 to 300 new initial posts per day with an average of 35 total comments per post ($M = 34.95$, $SD = 41.17$, $Mdn = 18$) (Park et al., 2018).

Types of Social Support

There are five types of social support: informational, emotional, esteem, tangible, and network support (Burleson, 2003; MacGeorge et al. 2011). Informational support encompasses attempts to provide distressed others the help they need by offering recommendations or information about how to respond to the situation (MacGeorge et al., 2016). Emotional support includes attempts to help a distressed other by a support provider who perceives that the other individual is suffering affectively (Burleson, 2003). Esteem support is conceptualized as attempts to help a distressed individual feel better about their own self and their abilities (Holmstrom, 2012). Tangible support involves offering a distressed individual assistance by providing goods or offering physical help (Burleson, 2003; MacGeorge et al., 2011). Finally, network support expresses to a distressed other that they are connected to and belong to groups of other individuals who might be able to provide support to them (MacGeorge et al., 2011). Research indicates that support providers can offer different types of social support in response to different situations, and support offered can be perceived as ranging from sensitive and effective to insensitive and dysfunctional (Burleson, 2003). Further, work in social support has posited that support providers attempt to match the social support that they offer to their perceptions of the support-seeker's needs (Cutrona et al., 1990; Horowitz et al., 2000).

Matching Models of Social Support

Work in the area of social support has proposed optimal matching models (Cutrona et al., 1990; Horowitz et al., 2000), which posit that support providers often attempt to offer social support that matches their perceptions of the stressful situation, or the goals of the support-

seeker. One example of a "goal" in a distress situation is to receive social support from another person, or the help they need to deal with a stressful life event. In most support situations, a support provider must infer the goal of a support-seeker because seekers are typically indirect in the ways that they disclose their distress or otherwise seek support. These indirect strategies can make it difficult for support providers to match their offered support to a support-seeker's goals.

Findings from work on goal matching also demonstrate that support-seekers are often effective in receiving their desired outcomes in disclosure situations because listeners typically understand that the reason a support-seeker disclosed the sensitive information is to receive some type of response from the listener to get help related to the disclosed issue (Horowitz et al., 2000). However, support providers have a harder time matching the support they offer to the specific situation being experienced by support-seekers if the support-seeking strategies used are indirect rather than direct, because support-seekers who use indirect strategies are more likely to leave out details about the stressful life event that might help the support provider determine what they can do or say to help.

Some research on social support matching has explored the relationship between preferred and received support, indicating that offering the amount and type of support that matches the preferences of a support-seeker leads to increased relational outcomes, like increased affect and higher relationship satisfaction (Lorenzo et al., 2018). Other work has indicated that supportive messages fail to provide benefits if the support provider does not match the type of support offered to the preferences of the receiver (Cutrona, 1990; Priem & Solomon, 2015). These studies show that in order for support messages to be effective, there must be some correspondence between support-seeking messages about the stressful life event and the type of social support provided (Cutrona & Suhr, 1992; Green-Hamann & Sherblom, 2014). Further,

15

findings indicate that social support is most beneficial following certain types of life events versus others, and that there are optimal combinations for matching social support to those different situations (Cutrona, 1990).

Lorenzo and colleagues (2018), for example, measured support match versus support mismatch by comparing the frequency of support desired with the frequency of support provided, analyzing the differences between discrepancies such as overprovision and under provision, and the outcomes on satisfaction. Other work has explored the "support gap hypothesis" (High & Crowley, 2018; Xu & Burleson, 2001), which examines deficits or surpluses in desired, sought, or received support. When it comes to support provision, Cutrona and Suhr (1994) reported that the characteristics of a life stressor, such as the nature of the stressful event, for example, influence the type of support provided by a group. In exploring the characteristics related to support-seeking messages, findings show that issues perceived as controllable are better addressed with instrumental support, whereas uncontrollable stressors, like undesirable health threats (Green-Hamann & Sherblom, 2014) are better addressed with emotional support (Cutrona et al., 2007). However, the best type of support might depend on the nature of the particular distressful situation (Goldsmith, 2004; Priem & Solomon, 2015), which may be conveyed in the content of the support-seeking message. In addition to matching the types of social support that they perceive the distressed individual desires; support providers also offer support messages with different characteristics that are confirming or disconfirming in nature.

Characteristics: Confirming vs. Disconfirming

In interpersonal communication research, studies have shown that messages can range in the extent to which an individual confirms or disconfirms the expressions of the recipient (Cissna & Sieburg, 1981; Dailey, 2006; Reis & Shaver, 1988). Confirming messages solicit an

individual's views and communicate that their feelings are valid or real by responding relevantly to the issue (Dailey, 2006; Ellis, 2000; Sieburg, 1985), whereas neutral messages are neither confirming or disconfirming and express indifference or a lack of understanding of the expressions from the other individual (Garvin & Kennedy, 1986). Disconfirming messages deny or reject the other person and their expressions (Cissna & Sieburg, 1981; Ellis, 2002). Some research indicates that humans have an innate desire to receive messages that are consistent with their own ideas (McGuire, 1960; Mojzisch et al., 2014), suggesting that individuals perceive messages that confirm their own thoughts or messages as more effective than messages that disconfirm their ideas (Mojzisch et al., 2014), which is referred to as a "confirmation bias" (Koslowski et al., 2013). Confirming messages typically make an individual feel recognized and acknowledged (Ellis, 2000; Laing, 1961; Sieburg, 1985), and studies show that confirming responses to disclosure related to mental illness are associated with increased mental health (Frey & Fulginiti, 2017).

When it comes to situations involving the disclosure of potentially stigmatized information, like experiencing symptoms of mental illness, research indicates that responses can either contribute to recovery or increase feelings of burdensomeness to others (Eskin, 2003; Paukert & Pettit, 2007). Positive responses, such as effective social support messages, can lead to positive social and health outcomes, like increased trust and subsequent help-seeking; but negative responses, such as unsupportive and disconfirming messages, can often lead to increased psychological distress and isolation (Chaudoir & Fisher, 2010; Overstreet et al., 2019). Findings also show that individuals who disclose symptoms of mental illness, especially when the symptoms are perceived as severe (i.e., self-harm), often receive disconfirming, negative social reactions (Ahrens et al., 2009; Littleton, 2010; Overstreet et al., 2019; Park & Ammerman,

2020; Ullman, 2000). These negative social reactions to disclosure about mental health symptoms are predictive of poorer psychological outcomes, such as increased depression (Ahrens et al., 2009; Park & Ammerman, 2020), however, some findings indicate that some disconfirming messages might be effective in specific situations that involve attempting to change someone's mind (Koslowski et al., 2013) (i.e., providing information to help show somebody an alternative option of behavior).

Negative social reactions to disclosure are not always intentional; findings show that sometimes a negative reaction is the result of lack of knowledge about how to be helpful and often these individuals are actually trying to help (Littleton, 2010; Ullman, 1999). In fact, many individuals who take the steps to seek formal help even report stigmatization and negative, disconfirming responses to help-seeking from medical professionals (Dobransky, 2019; Pescosolido, 2013), which may be a result of lack of understanding amplified by the effect of social stigma (Longden & Proctor, 2012).

Rationale for Hypotheses and Research Questions

Overall, findings in support-seeking research indicate that the differences in severity of the issue experienced may influence the ways in which an individual chooses to seek social support (Buehler et al., 2019; Buehler et al., 2018; Dunkel-Schetter & Skokan, 1990; Oh & LaRose, 2016), and the content expressed in their messages and disclosure strategies used might impact the ways in which support providers respond to those support-seeking messages (Fukkink, 2011; High & Young, 2018; Cutrona & Suhr, 1992). These findings indicate that the nature of the stressful event, expressed in the content of support-seeking messages, should influence the type of support provided (Cutrona & Suhr, 1993). Specifically in the context of the current study, the content expressed in initial posts is likely to influence different aspects of the

social support offered in comments, like the confirming or disconfirming nature of the messages or the types of social support offered (Cutrona & Suhr, 1992; Dunkel-Schetter & Skokan, 1990; High & Young, 2018). Initial posts that contain content related to some topics, for example, content related to self-harm (i.e., thoughts about or actual attempts at self-injury) might be considered a more severe to potential support providers compared to initial posts with content related to treatment (i.e., content related to medication, therapy, or other treatment options), discussion about their experiences (i.e., identifying depression or other specific symptoms of mental illness, identifying feelings separate from mental illness, identifying life vents), or other topics (i.e., questions or solicitations for opinions, or ambiguous and vague messages) and the content of those messages might influence the support offered to those individuals in different ways. Therefore, the current study proposes the following set of hypotheses and research question:

H1A and B: The content (i.e., self-harm, treatment, discussion, other) and support-seeking strategies (i.e., direct versus indirect, type of support sought) of initial posts influence (A) the characteristics (confirming, neutral, disconfirming response strategies) and (B) the types of support (i.e., informational, emotional, esteem, tangible, network, or no support) offered in response messages.

Work on optimal matching models of social support has indicated that support providers are more effective when the support they offer matches the nature of the support context in ways that help the support-seeker cope with the distressful life events they are going through. Further, work in social support has shown that receiving the amount and type of support that matches the recipients' preferences result in more favorable affect and higher relationship satisfaction (Lorenzo et al., 2018). Overall, research in social support indicates that there must be some

correspondence between the stressful life event and the social support provided in order for social support messages to be effective (Cutrona & Suhr, 1992). Therefore, the current study proposes the following hypothesis):

H2: The types (i.e., informational, emotional, esteem, tangible, network, or no support) of social support messages offered in comments will match the types of social support sought in initial posts.

Another goal of the current study is to provide clarification in the conceptualization of the variables included in the coding protocol. Specifically, there is some conceptual overlap between the confirming nature of support messages and the types or quality of social support offered in those messages. Dailey (2006) noted the similarities and overlap between confirmation messages in that individuals who create these messages are often attempting to validate and legitimize a distressed individual. Esteem support, or attempts to help another feel better about themselves and emotional support, or attempts to help another feel less sad (Holmstrom & Burleson, 2011), might be associated with the confirming or disconfirming nature of the supportive messages offered to distressed individuals. However, preliminary coding of the confirming versus disconfirming nature of responses in this context indicated that not all messages that offer support are confirming, and not all messages that are confirming offer social support. Specifically, it is common for individuals to offer informational social support using disconfirming message characteristics. Research on social support has demonstrated that it is difficult to offer appropriate informational support, especially if support was not requested directly from the distressed individual (Floyd & Ray, 2017; Goldsmith, 2004; MacGeorge et al., 2008; MacGeorge et al., 2016). Some research has demonstrated that offering informational support after offering emotional social support is the most effective, sensitive way to offer advice

(Feng, 2009), and other work has examined how to offer support while negotiating face threats (Floyd & Ray, 2017). One goal of the current study is to examine the relationship between the characteristics (i.e., confirming, neutral, disconfirming response strategies) and the types of social support offered. Specifically, the current study aims to investigate whether differences in characteristics of the support messages offered in comments vary in regard to type or if the characteristics determine the type and of the support message.

Research in support-seeking has conceptualized help-seeking behavior by measuring requests for social support on a dimension from direct to indirect (Barbee & Cunningham, 1995; Collins & Feeney, 2000). Additional aspects, such as the seriousness of the issues expressed in the content of the support-seeking message (Buehler et al., 2019; Dunkel-Schetter & Skokan, 1990; Oh & LaRose, 2016), are also important in understanding the effectiveness of different support-seeking strategies. One goal of the current study is to examine the relationship between the different topics of content discussed and the support-seeking strategies used to express that content. Therefore, the current study proposed the following research question:

RQ1: What is the relationship between the content expressed and the strategies used for seeking social support within initial posts?

In addition to the content expressed in initial posts and the social support-seeking strategies used in those messages, there are additional features of initial posts that might relate to support-seeking. For example, previous research has explored different aspects of message features (Shen, 2019) that might influence responses to different types of online posts (Fang et al. 2018; Zheng et al., 2018). Some of these features include message elaboration (Shen & Seung, 2018), which has been operationalized using measures that capture number of words in online content (Fang et al. 2018; O'Dea et al., 2018; Rooderkerk & Pauwels, 2016) and

specifically, the number of words in Reddit posts and comments (Chew et al., 2021; Collier et al., 2018; Park & Conway, 2018; Tuomchomtam & Soonthornphisaj, 2019). In order to understand the influence of the length of initial posts on the content and support-seeking strategies used within those posts, the current study proposed the following research question:

RQ2: Is there a relationship between the length of initial posts and the likelihood of expressing different content or using different support-seeking strategies (i.e., direct versus indirect; different types of support sought?

Research in social support has typically explored the different aspects of support contexts that might influence support provision (Burleson, 1985). Specifically, a great deal of social support research explores the types of support offered to different situations (MacGeorge et al., 2016) and the effectiveness of different types of support in response to different types of situations (Burleson, 2003). In addition to the types of support offered, it is important to understand other characteristics of messages offered in response to support-seeking. For example, many support-seekers, especially those who disclose severe mental health issues (i.e., self-harm) report receiving negative social reactions when they discuss those experiences (Ahrens et al., 2009; Littleton, 2019; Park & Ammerman, 2020; Ullman, 2000). Whereas some findings show that disconfirming messages might offer utility in specific situations, like for changing someone's mind (Koslowski et al., 2013), in the context of disclosing symptoms of mental illness, negative responses have been found to increase feelings of burdensomeness, isolation, and psychological distress (Chaudoir & fisher, 2010; Overstreet et al., 2019. One goal of the current study is to better understand the relationship between the confirming, neutral, and disconfirming characteristics of supportive messages and the types of support offered. Therefore, the current study proposes the following research question:

RQ3: What is the relationship between the characteristics (i.e., the confirming, neutral, and disconfirming response strategies) and the types (i.e., informational, emotional, esteem, tangible, and network) of social support offered in comments to initial posts?

One other issue of interest for the current study regards the relationship between the content of initial posts and the likelihood of receiving comments. A distressed individual cannot receive social support if nobody responds to their support-seeking attempts. Previous research has explored the utility of using Reddit for seeking social support, measuring the total number of comments received as an outcome (Sowles et al., 2017), and has attempted to understand why some online posts receive comments and others do not (Rooderkerk & Pauwels, 2016). Whereas some studies have operationalized support offered by measuring message features like length or number of upvotes (Chew et al., 2021), other studies have measured the number of replies as an indicator of effectiveness (Fang et al., 20180. A final goal of the current study is to investigate the relationship between the content and support-seeking strategies of the initial post and the number of comments offered, if any. Therefore, the current study proposes the following research question:

RQ4: What is the relationship between the content (i.e., self-harm, treatment, discussion, other) and support-seeking strategies (i.e., direct versus indirect, type of support sought) used in initial posts and the number of comments offered in response?

METHOD

Procedure

A content analysis coding protocol can demonstrate external validity by representing the type of content that exists in the real population of relevant content (Lacy et al., 2015). To enhance the external validity of the developed coding protocol, the population of content for the current study was collected from all posts in the r/Depression subReddit over two, two-day time-periods, over 8 months apart ($N = 945$; Day 1, April 3, 2018, $n = 647$; Day 2, January 29, 2019, $n = 298$). This content was collected to gather a population of posts typical for an average day in the r/Depression community. A simple random sample was taken from the population of posts to create the sample for the current content analysis study ($N = 250$). In order to capture a naturalistic sample of comments, the researcher returned to the subReddit 14 days after the initial posts to collect all direct comments in response to each of the initial posts in the study sample ($N = 502$.

Coder Training

In order to analyze the data in the subReddit and to test the hypotheses and answer the research questions for the current study, posts and comments were coded by paid graduate research assistants using a content analysis coding protocol developed for the current study (Appendix A). First, coders were trained to separate the data into codable units of analysis. One crucial aspect of a content analysis coding scheme is reliability. A reliable content analysis coding protocol results in "consistent categorization of content" (Lacy et al., 2015, p. 796), thus, consistently using the same unit of analysis is important for interpretation (Krippendorff, 2004; Krippendorff et al., 2016). A unit of analysis should be the "smallest distinguishable length" of a piece of content (Krippendorff, 2004, p. 790). To observe the relationships between the content

and support-seeking strategies used in initial posts and the types and characteristics of social support offered in comments, each initial post and comment was first broken down into units of analysis to be coded. The unit of analysis for the current coding protocol is a thought unit. In previous research (Dailey, 2006; Dillard & Shen, 2005; Rains & Turner, 2007), a thought unit has been operationalized as a turn of talk, or a part of a turn of talk that constitutes a complete idea, or the "smallest, meaningful utterance" (Dailey, 2006). Thought units can range from a single word to a complete turn of talk, and should be able to be understood out of context. The coders were trained to break down each unit of analysis within each initial post, which was later coded for content and support-seeking strategy, and each unit of analysis within each comment, which was later coded for the type and characteristics of the social support offered.

Following recommendations from Lacy and Riffe (1996) to establish unitizing reliability between coders at 85% coder agreement for a 95% level of probability, the two coders unitized a sample of initial posts ($n = 20$). Both coders unitized the 20 initial posts into 85 initial post units (100% agreement, Geutzkow's U = .00); coder 1 coded the comments into 191 units and coder 2 coded the comments into 196 units (98.7% agreement, Geutzkow's U = .01), which reached highly acceptable standards (Krippendorff et al., 2016). The rest of the sample was split between and unitized by the two coders.

Validity is also an important aspect of a content analysis coding protocol. Specifically, a coding protocol should be valid in that it helps coders categorize the content by defining variables, content categories, and procedures for coding content, but it should also provide an objective standard with which to compare the coders' coding (Potter & Levine-Donnerstein, 1999). One way to ensure that the coding protocol provides an objective standard is to create manifest, rather than latent coding categories A coding protocol that is internally valid is one that

splits the content into the meaningful categories that capture the differences that the researcher intended to observe (Oleinik et al., 2014). The current study developed coding categories deductively from theory and was adapted inductively, throughout the coding procedure to iteratively develop the coding categories and enhance the reliability of the coding protocol. By creating conceptual and operational definitions with examples from within the data, mutually exclusive coding categories were created, and coding rules were established between the coders during meetings about coding discrepancies. This "comprehensive inductive and deductive approach" (Burla et al., 2008) is common in content analysis research to ensure the accuracy of coding schemes (Sowles et al., 2017).

The coding protocol used for the current study (Appendix A) was developed from preliminary coding and underwent adaptive, iterative changes as the reliability process continued for additional variables that were added to the protocol. In order to maximize the effectiveness of the coder training, coding categories were created deductively after preliminary analyses and were adjusted throughout the reliability process by adding, collapsing, and removing coding categories. Content reliability was assessed for the initial post content, disclosure and support-seeking strategies, and for the types and characteristics of social support offered in the comments. The number of units in the content reliability test sample was determined by the process recommended by Lacy and Riffe (1996), while considering suggestions from other content analysis research (Krippendorff, 2004; Krippendorff et al., 2016; Lacy et al., 2015). The content reliability sample ($n = 25$ initial posts; 88 initial post units, 134 comment units) contained all categories represented in all of the variables in the coding protocol (Lacy et al., 2015; Lacy & Riffe, 1996). Percent agreement and chance-corrected reliability coefficients

(Krippendorff et al., 2016) reached acceptable levels (i.e., .80) (Lacy et al., 2015) (See Table 1

for reliability for all variables).

Table 1. Reliability by Variable

Variable	% Agreement	Krippendorff's Alpha
Title Content	.96	.93
Title Support Sought	.84	.77
Initial Post Strategy (direct/indirect)	.90	.84
Initial Post Content	.89	.78
Initial Post Support Sought	.95	.89
Comment Characteristics	.89	.81
Comment Type of Social Support	.84	.75
Overall	.89	.81

Another area of concern for content analysis research is restriction in range that might be

due to the context from which the data are gathered. Specifically, the proposed study utilized an

online support group with moderators that hold the role of filtering potentially hurtful content,

which might restrict the range in type and characteristics of social support offered in the

comments. Preliminary coding with a previous iteration of the coding protocol proposed here

was applied to a sample of comments ($N = 501$) and demonstrated a range of confirming and

disconfirming responses. Most comments contained a combination of confirming and

disconfirming strategies ($n = 176$), followed by only confirming ($n = 172$), mostly confirming ($n = 64$), mostly disconfirming ($n = 49$), and only disconfirming ($n = 40$). These results indicated

that comments offered a full range of characteristics in the support offered, ranging from

confirming (i.e., "this actually happens to me a lot," – P_090_C2_1; "I know how you feel," –

P_0342_C1_1) to disconfirming ("not the best idea" – P0712_C1_2), but indicated the need to

include a "neutral" category for comments that are neither confirming nor disconfirming (i.e.,

"this stuff takes time" – P_0143_C1_3).

Measures

Initial Post Content

        Codes for initial post content captured the theme, subject matter, and characteristics of the issue covered in the content of the messages within each initial post. Coding categories were adapted from previous research about the characteristics of support situations that influence support-seeking and support provision (Cutrona, 1990; Cutrona & Suhr, 1994; Priem & Solomon, 2015; Wang, 2019) and were deductively and iteratively adapted to best fit the data during the coding reliability process. Coders categorized content of initial posts by choosing the topic category that best represented each initial post unit. There are four categories of initial post content (self-harm, treatment, discussion, and other), which break down into 17 specific content topic categories (See Table 2).

Table 2. Initial Post Content Categories

Macro-Level	Micro-Level	Description	Example
Self-Harm		Any initial post unit that discussed self-harm in any sort, including thoughts about self-harm, disclosure about actual attempts of self-harm, self-harm of another person, or posts that related to self-harm in any other way	
	Self-Harm (Actual Attempt)	Identification of an actual attempt at self-harm	"I started cutting," "I have self-harmed enough in the past few days that it hurts to move"
	Self-Harm (Thought/Plan)	Expressions that an individual was thinking about or planning to attempt to hurt themselves	"I have this overbearing feeling that I will eventually end my life," "I thought about killing myself"
	Self-Harm (Other)	Expressions that another individual was considering, actually attempting to, or successfully hurting themselves	"my friend started to cut," "I think my friend is hurting herself"
Treatment		Any initial post unit that discusses any kind of treatment method, whether it is a consideration about treatment or disclosure about actual treatment attempts	
	Identification of Treatment (Therapy)	Identification that an individual has participated in therapy	"I started to see a therapist," "I was already at different docs/therapists"
	Identification of Treatment (Medication)	Identification that an individual has consumed medication as a treatment method	"I recently started taking medication (Wellbutrin XL)"
	Identification of Treatment (Other)	Identification that an individual has attempted some other type of behavior as a treatment method to treat their symptoms	"I have tried dieting to improve my mental health"

Table 2 (cont'd).

	Identification of Treatment (Multiple Methods)	Identification that an individual has attempted multiple behaviors (not listed as other options) as a treatment method	"I stopped drinking and started working out," "I started going to bed early and walking outside"
	Consideration of Treatment (Therapy)	Identification that an individual is thinking about or considering therapy as a treatment method, but has not yet tried it	"I want therapy, desperately tried to get an appointment," "has therapy helped anyone else out there?"
	Consideration of Treatment (Medication	Identification that an individual is thinking about or considering medication as a treatment method, but has not yet tried it	"I am thinking about taking antidepressants"
	Consideration of Treatment (Other)	Identification that an individual is thinking about or considering some other behavior (not listed as other options) as a treatment method, but has not yet tried it	"I am thinking about seeing a nutritionist to help with my mental health"
	Consideration of treatment (Multiple Methods)	Identification that an individual is thinking about or considering multiple behaviors (that are not listed as treatment options) as a treatment method, but has not yet tried them	"I have considered seeing a dietician or a sleep doctor," "I have thought about working out more and spending more time outside"
Discussion		Any initial post unit that discusses different aspects of the initial poster's life	
	Identification of Symptoms/Depression	Explicit expressions that connect an individual's experiences to a specific symptom of mental illness, like depression	"I was recently diagnosed with dysthymia, or prolonged mild depression," "I've been depressed"

Table 2 (cont'd).

	Identification of Feeling Separate from Mental Illness	Expressions that an individual is experiencing some feelings or symptoms that may be related to mental illness, without making an explicit identification of a specific mental illness or symptom	"I feel numb and super low-energy," "I can't help feeling sad"
	Identification of Life Experiences	Discussions about life events without connecting the experiences too feelings or symptoms of mental illness	"my mom wants me to clean my room," "I have a test coming up in geometry and I suck at it"
Other		Any initial post unit that did not discuss self-harm, treatment, or other feelings and life events	
	Questions/Solicitations	Initial post units that sought responses by asking questions or soliciting information, without connecting the request to an emotional experience or explicit symptom of mental illness.	"what helps you feel better?"
	Ambiguous/Not Clear	Any initial post unit that did not express life details or seek information and did not contain any relevant content information	poems, content with no explicit details, "I haul in the dark, to the silver shimmer of the moon"
	No Support-Seeking	Messages that did not seek support in any way	no indication of support-seeking

Initial Post Support Sought

     Codes for initial post support sought measured the type of social support, if any, sought by the initial poster within initial posts. Research in social support suggests that social support messages are more effective if they match the preferences of support-seekers (Cutrona & Suhr, 1992; Green-Hamann & Sherblom, 2014; Lorenzo et al., 2018). Coding categories were adapted from previous research in social support (Burleson, 2003; MacGeorge et al., 2011) to capture the type of social support sought by the initial poster. Coders categorized the initial post content into one of six categories (See Table 3).

Table 3. Initial Post Support Sought Categories

Type of Support Sought	Description	Example
No Social Support Sought	Initial post units that did not include a desire for social support or did not seek any of the five types of support in any way	"that's all I wanted to say"
Informational Support Sought	Initial post units that sought informational support or otherwise indicated that informational support was desired by mentioning anything about seeking assistance or recommendations, or otherwise included indirect r direct requests for advice, factual input, or other types of feedback about their actions or situation as a response	"what do you think I should do?" "I really need some help with this," "I don't know what to say."
Emotional Support Sought	Initial post units that sought emotional support or otherwise indicated that emotional support was desired by expressing emotional distress and/or including indirect or direct requests for caring, comfort, empathy, or other messages that might improve their affect	"I am having a really hard time," "everything sucks so much"
Esteem Support Sought	Initial post units that sought esteem support or otherwise indicated that esteem support was desired by including indirect or direct requests for the expression of encouragement, validation, or regard for their skills, abilities, or intrinsic value	Putting themselves down; "I don't think I can get through this," "I am the worst"
Tangible Support Sought	Initial post units that sought tangible support or otherwise indicated that some type of tangible assistance was desired by including indirect or direct requests for physical goods or services	"I have no way to make that happen," "I can't afford that"
Network Support Sought	Initial post units that sought network support or otherwise indicated that network support was desired by including indirect or direct requests for expressions of belonging or affiliation	"I feel like I am alone," "nobody even cares about me"

Initial Post Support-Seeking Strategy

Codes for initial post support-seeking strategy measured the indirect versus direct nature of the initial post units. Adapted from previous conceptualizations of support-seeking behavior (Barbee & Cunningham, 1995; Barbee et al., 1990; Collins & Feeney, 2000), initial post strategy categories attempted to differentiate between initial post units that were indirect or direct in their support-seeking nature by categorizing units into one of two macro-level strategy categories. At the initial post-level, a ratio of indirect to direct support-seeking units was used to measure the strategies used by support-seekers.

1: Indirect. This category included initial post units that used indirect support-seeking strategies, including vague expressions of distress, either about their own or on behalf of someone else, without connecting the situation to mental illness or reference to any personal information relevant to the support-seeking. Coders categorized initial post units into this category if they indirectly expressed distress without seeking support directly (e.g., "things have been rough," "I'm having the worst day.").

2: Direct. This category included initial post units that used direct support-seeking strategies, including direct expressions and direct disclosures about details or aspects of the problem at hand. Coders categorized direct initial post units into two micro-level categories: direct questions/solicitations – which are direct expressions to indicate that some sort of a response is requested or desired, like asking questions (e.g., "I need help," "what should I do?"); and direct disclosure – which are explicit expressions or details about the relevant situation, which convey the need for help through providing personal information specific to their experience (e.g., "I've been depressed," "I think something is wrong with my mental health.").

Types of Social Support Provided

       Codes for the type of social support were adapted from previous measures and

conceptualizations of the five social support types (Burleson, 2003; MacGeorge et al., 2011).

Trained research assistants categorized content units into one of six support categories: no social

support, informational support, emotional support, esteem support, tangible support, and network

support (See Table 4).

Table 4. Comment Social Support Provided Categories

Type of Support Provided	Description	Example
No Social Support Provided	Comment units that did not offer social support or respond to the initial post in a way that provided any of the five types of support	Irrelevant responses
Informational Support Provided	Comment units that included messages that attempted to provide assistance to the initial poster by offering recommendations or providing information about how to respond to a situation or in other ways provided advice, factual input, or other types of feedback on actions expressed	"you should start seeing a therapist," "you should try to go outside more"
Emotional Support Provided	Comment units that attempted to help the initial poster by expressing caring or comfort, or otherwise attempted to improve the affect of the initial poster by conveying concern or sympathy	"I am here for you," "it hurts to hear your pain"
Esteem Support Provided	Comment units that provided aid to the initial poster by making them feel validated or otherwise tried to improve their feelings of self-worth, or expressed appreciation for their skills and abilities	"you can do it," "you are amazing"
Tangible Support Provided	Comment units that offered assistance by attempting to provide access to physical goods or providing goods or services to the initial poster	"I can drive you to get groceries," "I will pay for your appointment"
Network Support Provided	Comment units that expressed that the initial poster belongs to a larger group of similar individuals who can also offer support, or otherwise expressed a sense of belonging	"we are here for you," "keep posting to this page, we appreciate your comments"

Characteristics of Comments

Codes for the confirming versus disconfirming characteristics of comments were adapted from previous research related to responses to disclosure (Frey & Fulginiti 2017) and confirmation theory (Dailey, 2006). Comment characteristic coding categories captured the nature of the response to distress disclosures (Frey & Fulginiti, 2017) and the degree to which messages validate the support-seeker as unique, valuable, and worthy of respect (Dailey, 2006). Coders categorized the confirming, disconfirming, or neutral characteristics of socially supportive messages by coding comment units into one of nine sub-categories of characteristics, adapted from previous research on confirming and disconfirming messages (Dailey, 2006; Garvin & Kennedy, 198; Reis & Shaver, 1988; Tong & Walther, 2015) (See Table 5).

Table 5. Characteristics of Comments

Macro-level Category	Micro-Level Category	Description	Example
Disconfirming		Comment units that disqualified the feelings expressed by a distressed individual by indicating that their perspective is not valid, communicating disaffinity through disagreements or other linguistic strategies, or otherwise demonstrating a negative regard for another person by challenging or rejecting the expressions offered in an initial post	
	Deny/Reject	Comment units that acknowledged feelings expressed by an initial poster, but denied their feelings by opposing their decision to react in the way that they did or otherwise rejected their expressions	"you shouldn't feel that way"
	Insult	Comment units that indicated to a distressed individual that they were wrong for expressing the feelings offered by disqualifying their perspective or otherwise making them feel badly about the expressions offered in the initial post	"only an idiot would act that way"
	Avoid Interaction	Comment units that responded to an initial post but failed to acknowledge the attempt to communicate through changing the topic or otherwise not responding to the content expressed	Irrelevant topics, unrelated personal stories
Neutral		Comment units that responded to the initial post in ways that did not disqualify or reject the feelings expressed, but also did not respond to the significance of the situation or perspective offered	
	Seek Clarification (Question)	Comment units that asked the initial poster to elaborate on their perspective or feelings, not accepting or rejecting the expressions offered, but asking questions or otherwise seeking additional information	"what happened leading up to the time that you started feeling that way?"

Table 5 (cont'd).

	Discuss Own Experiences	Comment units that discussed the commenters' own situations without linking their experiences to the initial poster's feelings or perspective, or otherwise did not respond to the content in the initial post	"sometimes I think I am too emotional, other times I feel hollow and unable to communicate with others"
	Ambiguous Comments	Comment units that did not relate to the initial poster's feelings or perspective in any way, or otherwise did not have relevance or connection to the content offered in the initial post	Symbols, non-English, etc.
Confirming		Comment units that responded to the significance of the initial poster's situation and emotions by communicating affinity with agreement or other linguistic strategies, or otherwise showing positive regard by encouraging communication or supporting/agreeing with them	
	Recognize/Acknowledge	Comment units that acknowledged and recognized the feelings of the initial poster by agreeing with the content of their message or otherwise identifying the appropriateness of their expression	"I can totally see how you would feel that way," "Same"
	Express Significance	Comment units that responded to the initial post by communicating that their feelings are valid and real, or otherwise seeming to agree with the appropriateness and make note of the importance or weight of the expression	"of course you feel that way, this is a serious issue, and your response is understandable"
	Solicit Views	Comment units that asked the initial poster for their opinions and solicited their viewpoint, not only legitimizing their expressions but attempting to have them elaborate or understand their feelings or perspective on a deeper level	"I feel like that all of the time, too, it is perfectly okay to react like that. I usually try to think about other important things I have going for me in my life, do you have anything else happening right now?"

Word Count

In addition to the content analysis coding categories, measures of word count were also used for initial posts and for comments. For each initial post, the total number of words in the post was calculated, the total number of units in the post were noted, and the total number of words per unit were calculated. For each comment, the total number of words in the comment was calculated, the total number of units in the comment was noted, and the total number of words per unit was calculated. Word count measures were used for additional analyses to control for the effect that the length of messages may have on the nature of posts or comments.

RESULTS

Overview of Initial Posts

Out of the 250 initial posts in the sample, two were excluded from post-to-comment-level analyses: one post (with two comments) was written in a different, untranslatable language; and anther post (with one comment) did not contain text in the post but had text in the title.

From the 248 initial posts with text, there were 1,064 initial post units ($M = 4.28$, $SD = 3.26$) (See Table 6 for breakdown of initial post content, support sought, and strategy). To answer Research Question 1, the relationship between the content expressed in initial posts and the support-seeking strategies used was analyzed. Overall, initial posts with more units that sought social support, in general, contained fewer self-harm content units compared to initial posts with less units that sought support ($r(246) = -.14$, .03). Initial posts that sought informational support were more likely to use direct support-seeking strategies ($r(246) = .31$, p <.001), were more likely to contain treatment ($r(246) = .12$, $p < .05$) or vague content ($r(246) = .15$, $p < .01$), and were less likely to contain discussion content ($r(246) = -.16$, $p < .01$). Initial posts that sought emotional support were more likely to contain discussion content ($r(246) = .21$, p <.001), and less likely to contain vague or ambiguous content ($r(246) = -.17$, p <.01). Initial posts that sought esteem support were more likely to use indirect strategies ($r(246) = .13$, p < .05), (See Table 7 for correlations between initial post variables).

Table 6. Overview of Initial Posts

Variable		N units	% units	N posts contained	% total posts present/absent	M proportion	SD proportion
Content							
	Self-Harm	92	8.6	66	26.4	.09	.19
	Treatment	153	14.4	52	20.8	.07	.17
	Symptoms/Mental Illness	555	52.2	90	36	.11	.19
	Discussion	183	17.2	217	86.8	.65	.33
	Other	183	17.2	118	47.2	.19	.28
	Total	1,064					
Support-Sought							
	No Support-Seeking	792	74.4	225	90	.73	.31
	Sought Info Support	141	11.1	96	38.4	.13	.21
	Sought Emotional Support	42	3.3	37	14.8	.04	.14
	Sought Esteem Support	62	4.9	44	17.6	.06	.18
	Sought Tangible Support	0	0	0	0	0	0
	Sought Network Support	27	2.1	24	9.6	.03	.14
	Total Support-Seeking	272	25.6	152	60.8	.27	.31
Strategy							
	Indirect Units	632	59.4	230	92	.64	.3
	Direct Units	432	40.6	177	70.8	.36	.3

Table 7. Correlations Between Initial Post Variables

	Self-Harm Content	Treatment Content	Symptom/ Depression Content	Discussion Content	Other Content	Direct	Indirect
No Support Sought	**.14, .03**	.01, .93	.09, .14	-.12, .06	.05, .47	-.11, .08	.11, .08
Sought Informational	-.07, .28	**.12, .05**	-.04, .56	**-.16, .01**	**.15, .01**	**.31, .00**	**-.31, .00**
Sought Emotional	-.08, .19	-.04, .53	-.02, .79	**.13, .04**	-.07, .28	.01, .85	-.01, .85
Sought Esteem	-.05, .42	-.07, .27	-.06, .34	**.21, .00**	**-.17, .01**	**-.13, .04**	**.13, .04**
Sought Tangible	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Sought Network	-.05, .47	-.07, .28	-.06, .39	.11, .09	-.05, .42	-.06, .31	.06, .31
Total Support Sought	**-.14, .03**	-.01, .93	-.09, .14	.12, .06	-.05, .47	.11, .08	-.11, .08

Note. r(246), *p*-value

Overview of Comments

   There were 500 comments in direct response to the 248 initial posts with text in the

sample ($M = 2.01$, $SD = 3.48$), which were made up of 1,276 comment units (M comment units

per post $= 5.12$, $SD = 7.79$) (See Table 8 for breakdown of comment variables).

Table 8. Comment Variables

Variable			*N* units	% units	*N* posts present/ absent	% total posts present/ absent	*M* proportion	*SD* proportion
Characteristics								
	Disconfirming		149	11.6	63	25.2	.10	.19
		Deny/Reject	147	11.5	62	24.8	.59	2.08
		Insult	2	.15	2	.8	.01	.09
		Avoid	0	0				
	Neutral		873	68.4	174	69.6	.69	.25
		Seek Clarification	14	1.1	14	5.6	.06	.23
		Discuss Own Experiences	311	24.4	112	44.8	1.25	2.78
		Ambiguous	548	42.9	151	60.4	2.2	3.24
	Confirming		254	19.9	112	44.8	.21	.23
		Recognize/ Acknowledge	204	15.9	96	38.4	.82	1.64
		Express Significance	26	2	20	8	.1	.39
		Solicit Views	24	1.9	23	9.2	.1	.31
Types of Social Support Offered								
	No Support		323	25.3	82	32.8		
	Informational Support		525	41.1	146	58.4	.46	.34

Table 8 (cont'd).

Emotional Support	324	25.4	111	44.4	.22	.24
Esteem Support	54	4.2	33	13.2	.04	.11
Tangible Support	38	2.9	25	10	.03	.08
Network Support	12	0.9%	10	4	.01	.08
Total Support	953	74.7	167	66.8	.76	.31

In order to answer Research Question 2, to determine the relationship between the length of initial posts on initial post coding categories and on the comment categories, a number of analyses were run. First, there was a significant negative relationship between the number of words in a post and the number of comments received ($r(247) = -.14$, $p < .05$), showing that longer posts received fewer total comments. There was also a significant negative relationship between the number of initial post units and the total number of comments received ($r(247) = -.16$, $p < .05$), which indicated that the more units that an initial post contained, the fewer comments they received. Next, there was a significant positive relationship between the number of words in the initial post and the proportion of support units received in the comments ($r(180) = .19$, $p < .01$). There was also a significant relationship between the number of initial post units and the proportion of indirect versus direct strategies used ($r(246) = .19$, $p < .01$), such that posts with more initial post units were coded as more direct. There was no significant relationship between the number of words in the post and the proportion of support units sought in the post ($r(180) = -.095$, $p = .14$). Findings offer partial support in that there was some effect of the length of initial posts on the number of comments received, the total number of units in the initial post and the number of comments received, and the number of words in the initial post and the proportion of support units received in the comments.

Initial Post Content and Comment Support

To test Hypothesis 1, the relationships between the content of initial posts and the characteristics and types of social support in comments were analyzed. First, for H1(A) regression models were run to test the effect of the proportion of content categories in initial posts on the proportion of confirming, neutral, or disconfirming characteristic categories in the comments. The model predicting the proportion of disconfirming comment units ($F(3, 175) =$

3.35, *Adj. R*-squared = .04, *p* = .04), and the model predicting the proportion of neutral units

(F(3, 175) = 2.83, *Adj. R*-squared = .05, *p* = .02) reached statistical significance, however none

of the predictor variables were significant and the effect was not substantial (See Table 9 for

Regression Models).

Table 9. Regression Models for Comment Characteristics

	DV: Disconfirming				DV: Neutral				DV: Confirming			
	b	SE	t-value	p-value	b	SE	t-value	p-value	b	SE	t-value	p-value
Self-Harm Content	-.27	.74	-.35	.73	-.19	1.01	-.25	.8	.42	.95	.55	.59
Treatment Content	-.42	.74	-.53	.59	-.13	.99	-.16	.87	.47	.94	.59	.56
Symptom/ Depression Content	-.34	.74	-.48	.64	-.06	.99	-.09	.93	.35	.94	.47	.64
Discussion Content	-.35	.74	-.26	.79	-.55	1.01	-.41	.69	.87	.94	.63	.53
Other Content	-.40	.74	-.36	.72	-.41	1.00	-.37	.71	.77	.94	.74	.50
Adj. R-squared	.04	.18			.05	.25			-.01	.23		
F (5, 175)	**3.35**			**.04**	**2.83**			**.02**	.85			.52

49

Analyzing the Pearson Product-Moment coefficients between the proportions of content categories in initial posts and the proportions of confirmation categories (H1A) revealed that there was a statistically significant, negative relationship between the proportion of treatment content in initial posts and the number of disconfirming units ($r(181) = -.17$, $p < .05$), such that the more treatment units there were in an initial post, the fewer disconfirming units those posts received (See Table 10 for correlations between initial post and comment variables). There were also significant, positive relationships between the proportion of content that discussed explicit symptoms of mental illness or depression in initial posts and the proportion of neutral comment units ($r(181) = .18$, $p < .01$) and between the proportion of discussion content in initial posts and the proportion of disconfirming comments ($r(181) = .16$, $p < .05$). The relationship between the proportion of treatment content and the proportion of neutral comments was also not statistically significant ($r(181) = .14$, $p = .055$). These results offer limited support for H1(A).

Table 10. Correlations Between Initial Post and Comment Variables

Initial Post Variable		Characteristics			Support Provided						
		Disconf.	Neutral	Conf.	No Support	Info Support	Emotional Support	Esteem Support	Tangible Support	Network Support	Total Support
Content											
	Self-Harm	-.02, .79	.07, .38	- .06, .45	**.21, .01**	**-.16, .03**	.02, .81	-.04, .57	-.01, .88	-.05, .50	**-.20, .01**
	Treatment	**-.17, .02**	.14, .06	- .02, .82	-.04, .63	.05, .55	-.01, .88	-.01, .89	.06, .44	-.04, .63	.03, .56
	Symptom/ Depression	-.11, .15	**.18, .01**	- .11, .13	-.06, .46	.08, .26	-.04, .60	-.01, .88	-.06, .41	-.03, .71	.03, .65
	Discussion	**.16, .04**	-.09, .22	-.03, .74	**-.26, .00**	.09, .20	**.16, .03**	-.07, .34	.00, .99	.12, .11	**.24, .00**
	Other	-.05, .48	- .03, .65	.08, .29	**.20, .01**	-.04, .60	**-.2, .01**	.12, .11	-.03, .65	.08, .26	-.19, .01
Support Sought											
	No Support	-.14, .07	.04, .59	.06, .39	.05, .55	-.06, .41	.04, .55	-.14, .06	.02, .81	.09, .26	-.06, .42
	Info Support	-.08, .28	.12, .10	-.07, .35	-.03, .74	**.15, .05**	**-.18, .01**	.07, .37	.03, .73	.07, .37	.04, .63
	Emotional Support	.01, .87	.03, .74	-.04, .62	-.01, .87	.02, .76	-.02, .81	.05, .51	-.04, .61	-.01, .88	.02, .82
	Esteem Support	**.3, .00**	**-.21, .01**	-.01, .86	-.07, .37	-.05, .52	.13, .09	.14, .06	-.05, .51	-.04, .59	.07, .34
	Tangible Support	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Network Support	.02, .76	-.04, .57	.03, .71	.04, .57	-.06, .41	.05, .48	-.03, .68	.02, .74	-.01, .84	-.04, .62
	Total	.14, .07	-.04, .59	-.06, .39	-.05, .55	.06, .41	-.04, .55	.14, .06	-.02, .81	-.09, .26	.06, .42

Table 10 (cont'd).

Strategy											
Indirect	.13, .08	**-.17, .02**	.08, .28	.13, .07	-.09, .25	.06, .42	-.13, .07		.14, .07	-.14, .07	-.10, .19
Direct	-.13, .08	**.17, .02**	-.08, .28	-.13, .07	.09, .25	-.06, .42	.13, .07		-.14, .07	.14, .07	.10, .19

Note. $r(179)$, *p*-value

For H1(B), a regression model was run to test the effect of the proportion of different content categories on the proportion of support units in the comments offered in response, which was statistically significant (F(5, 175) = 3.86, *Adj. R*-squared = .07, $p < .01$) (See Tables 11-13 for regression models). Post-hoc analyses revealed that none of the predictor variables were significant and the effect was not substantial. Next, the regression model to test the effect of the proportion of content categories on the proportion of no support comment units was statistically significant (F(5, 175) = 4.50, *Adj. R*-squared = .09, $p = .001$), however, post-hoc analyses revealed that none of the predictor variables were statistically significant and the effect was not substantial.

Table 11. Regression Models for Comment Support by Content, Part I

	DV: Total Support				DV: No Support			
	b	*SE*	*t-value*	*p-value*	*b*	*SE*	*t-value*	*p-value*
Self-Harm Content	-1.34	1.20	-1.79	.08	1.39	1.18	1.89	.06
Treatment Content	-1.13	1.19	-1.49	.14	1.18	1.17	1.55	.12
Symptom/Depression Content	-1.51	1.19	-1.51	.13	1.08	1.17	1.54	.13
Discussion Content	-1.48	1.19	-1.48	.14	2.02	1.17	1.53	.13
Other Content	-1.69	1.19	-1.69	.09	1.92	1.17	1.76	.08
Adj. R-squared		.07	.29			.09	.29	
F (5, 175)		**3.86**		**.002**		**4.50**		**.001**

Table 12. Regression Models for Comment Support by Content, Part II

	DV: Info Support				DV: Emotional Support				DV: Esteem Support			
	b	*SE*	*t-value*	*p-value*	*b*	*SE*	*t-value*	*p-value*	*b*	*SE*	*t-value*	*p-value*
Self-Harm Content	-1.32	1.38	-1.72	.09	.45	.96	.59	.56	-.31	.46	-.40	.69
Treatment Content	-1.16	1.37	-1.47	.14	.44	.85	.56	.58	-.30	.46	-.37	.71
Symptom/ Depression Content	-1.04	1.37	-1.42	.16	.38	.95	.52	.61	-.27	.46	-.37	.71
Discussion Content	-2.08	1.37	-1.52	.13	.87	.95	.64	.53	-.52	.46	-.38	.71
Other Content	-1.76	1.37	-1.56	.12	.43	.95	.43	.67	-.31	.46	-.27	.79
Adj. R-squared		.02	.34			.02				-.01	.11	
F (5, 175)		1.72		.133		1.89		.10		.56		.73

Table 13. Regression Models for Comment Support by Content, Part III

	DV: Tangible Support				DV: Network Support			
	b	*SE*	*t-*value	*p-*value	*b*	*SE*	*t-*value	*p-*value
Self-Harm Content	-.28	.33	-.36	.72	-.12	.32	-.15	.88
Treatment Content	-.22	.33	-.28	.78	-.11	.32	-.13	.90
Symptom/Depression Content	-.31	.33	-.31	.68	-.09	.32	-.13	.90
Discussion Content	-.46	.33	-.46	.74	-.07	.32	-.05	.96
Other Content	-.42	.33	-.42	.72	-.17	.32	-.15	.89
Adj. R-squared	-.02	.08			-.01	.08		
F (5, 175)	.31			.91	.64			.67

Analyzing the Pearson Product-Moment coefficients to further test H1B (Table 10, above), the correlations between content categories and support were also compared. There was a negative relationship between the proportion of self-harm content expressed in initial posts and social support received, such that initial posts with more content units about self-harm received a lower proportion of social support units in the comments (r (179) = -.19, $p < .01$), and specifically less informational support (r (179) = -.16, $p < .05$). There was a positive relationship between discussing life events or feelings in the initial post and receiving emotional support in the comments, such that initial posts with a higher proportion of comments that discussed life events received more emotional support (r (179) = .16, $p < .05$). There was also a negative relationship between ambiguous and vague content and emotional support, such that initial posts with a higher proportion of units that did not mention mental health symptoms were less likely to receive emotional support (r (179) = -.2, $p < .01$). These results provide support for H1(B) in that they show that there was an effect of the types of support offered in comments based on the content expressed in initial posts.

Last, to test H1(B), binary coding categories were also created to identify whether initial posts contained units in any of the content or support sought categories, or not, and if the comments in response contained any social support, or not, to determine the effect of the presence or absence of coding categories on the likelihood of obtaining social support, or not. There were no significant effects based on the presence or absence of any initial post categories on the likelihood of receiving social support or not.

Initial Post Support Sought and Comment Support

To test Hypothesis 2, multiple analyses were completed to compare the relationship between social support sought in the initial post and social support received in the comments.

First, regression models were tested to analyze the effect of the proportion of units that sought

each type of support on the total proportion of support in the comments and on each type of

social support, however none of the models were statistically significant (see Tables 14-16). The

model testing the effect of the proportion of units that sought each type of support on the

proportion of emotional support units in the comments was not statistically significant ($F(4, 176)$

$= 2.25$, *Adj. R*-squared $= .03$, $p = .07$), however there was a negative relationship between the

proportion of initial post units that sought informational support and the proportion of emotional

support units offered in the comments ($r(179) = -.18$, $p <.01$).

Table 14. Regression Models for Comment Support by Support Sought, Part I

	DV: Total Support				DV: No Support			
	b	*SE*	*t-*value	*p-*value	*b*	*SE*	*t-*value	*p-*value
Sought Info	.04	.10	.56	.58	-.03	.09	-.39	.69
Sought Emotional	.03	.16	.35	.73	-.02	.16	-.25	.80
Sought Esteem	.08	.12	1.01	.31	-.07	.12	-.92	.36
Sought Network	-.03	.17	-.39	.70	.04	.17	.47	.64
Adj. R-squared		-.01	.31			.02	.31	
F (5, 175)		.38			.82	.32			.87

Table 15. Regression Models for Comment Support by Support Sought, Part II

	DV: Info Support				DV: Emotional Support			
	b	*SE*	*t-*value	*p-*value	*b*	*SE*	*t-*value	*p-*value
Sought Info	.14	.11	1.9	.06	**-2.34**	**.08**	**-2.31**	**.02**
Sought Emotional	.03	.17	.45	.66	-.35	.12	-.35	.73
Sought Esteem	-.04	.14	-.49	.63	1.51	.09	1.51	.13
Sought Network	-.05	.18	-.05	.49	.58	.13	.59	.56
Adj. R-squared		.01	.34			.03	.23	
F (4, 176)		1.22			.31	2.25			.07

Table 16. Regression Models for Comment Support by Support Sought, Part III

	DV: Esteem Support				DV: Tangible Support				DV: Network Support			
	b	*SE*	*t-value*	*p-value*	*b*	*SE*	*t-value*	*p-value*	*b*	*SE*	*t-value*	*p-value*
Sought Info	.09	.04	1.15	.25	.02	.03	.25	.81	-.08	.03	-.99	**.32**
Sought Emotional	.07	.06	.96	.34	-.04	.04	-.51	.61	-.03	.04	-.34	.73
Sought Esteem	**.15**	**.04**	**2.04**	**.04**	-.05	.03	-.67	.51	-.05	.03	-.65	.52
Sought Network	-.01	.06	-.18	.86	.02	.04	.28	.78	-.03	.04	-.33	.75
*Adj. R-*squared	.01	.11			-.02	.08			-.02	.08		
F (4, 176)	1.42			.23	.22			.93	.35			.85

After analyzing the Pearson Product-Moment coefficients for all variables related to support sought and support received (see Table 10, above), the proportion of initial post units that sought informational social support was associated with the proportion of informational social support units received in the comments (r (179) = .15, p < .05). There was also a significant positive relationship between the proportion of initial post contents that sought esteem support and the proportion of esteem support units in the comments (r(246) = .13, p <.05. Further, there was a significant negative relationship between the proportion of initial post units that sought informational social support and the proportion of emotional social support in the comments (r(179) = -.18, p <.01). There was also a significant, negative relationship between the proportion of initial post units that sought informational support and the proportion of no support units in the comments (r(246) = -.57, p<.001), a negative relationship between the proportion of initial post units that sought emotional support and the proportion of no support units in the comments (r(246) = -.35, p <.001), a negative relationship between the proportion of initial post units that sought esteem support and the proportion of no support units in the comments (r(246) = -.48, p <.001), and a negative relationship between the proportion of initial post units that sought network support and the proportion of no support units in the comments (r(246) = -.34, p <.001).

Characteristics and Types of Comment Support

The third research question explored the relationship between the characteristics and types of social support offered in the comments by analyzing the Pearson Product-Moment coefficients for the comment variables. Additionally, the current study analyzed the relationships between the types (i.e., informational, emotional, esteem, tangible, network, no support) and characteristics (i.e., confirming, neutral, disconfirming) of support messages offered in the

comments (see Table 17). Comments that contained a greater proportion of units that were

confirming in nature were more likely to offer emotional social support (r (180) = .4, p < .001)

and network support (r (180) = .25, p < .01), and were less likely to offer informational support

(r(180) = -.47, p <.001) and esteem support (r (180) = -.15, p < .05). Comments that contained a

greater proportion of units that were disconfirming in nature were more likely to offer

informational social support (r(180) = .19, p < .01) and more likely to offer esteem support

(r(180) = .21, p < .01). Comments that contained a greater proportion of units that were coded as

neutral nature were also more likely to offer informational support (r(180) = .29, p <.001) and

were less likely to offer emotional support (r(180) = -.28, p <.001).

Table 17. Correlations Among Comment Variables

	Disconfirming	Neutral	Confirming
No Social Support	**-.17, .02**	-.04, .57	**.18, .01**
Info Support	**.19, .01**	**.29, .00**	**-.47, .00**
Emotional Support	-.13, .09	**-.28, .00**	**.40, .00**
Esteem Support	**.21, .01**	-.02, .84	**-.15, .04**
Tangible Support	-.09, .25	.01, .89	.06, .44
Network Support	-.03, .71	**-.21, .01**	**.25, .01**
Total Support	**.16, .03**	.05, .47	**-.19, .01**

Note. r(180), p-value

Total Number of Comments

The fourth research question explored the relationship that the content and support

seeking strategies used in initial posts had on the number of comments offered in response. There

were 67 (26.8%) initial posts that did not receive any comments, whereas the most common

number of comments received was one (91 initial posts, 36.4%), one initial post received 31

comments, the next highest number of comments received was 19 ($n = 2$, .8%). There were no

statistically significant differences between posts that received comments and posts that did not

receive comments in regard to the proportion of support sought in initial posts ($t = 1.19$, $p > 05$),

the proportion of indirect ($t = -.026$, $p > .05$) or direct ($t = .24$, $p > .05$) initial posts units, or the

content of initial posts ($t = .04$, $p > .05$). In order to test the effect of the proportion of different

content categories and support-seeking strategies in initial posts on the total number of

comments offered in a response, a number of regression models were analyzed (see Tables 18

and 19). The model predicting the total number of comments from the proportion of initial post

units that sought each type of support was statistically significant ($F(4, 243) = 3.66$, *Adj. R-

squared* $= .04$, $p < .01$) (See Table 18); post-hoc analyses indicate that the significant model is

driven by the significant, positive effect of the proportion of initial post units that sought

emotional support ($b = .2$, $t(247) = 3.25$, $p < .001$) and the significant positive effect of the

proportion of initial post units that sought network support ($b = .13$, $t(247) = 2.02$, $p < .05$). This

finding indicates that the more emotional and network support sought in initial posts, the more

total comments those posts received in response. By analyzing the Pearson Product-Moment

coefficients for all of the initial post variables with the total number of comments, the only

aspect of the initial post variable that was statistically significantly related to the total number of

comments was the proportion of initial post units that sought emotional support ($r(248) = .196$, $p

< .01$; indicating that initial posts with a greater proportion of emotional support-seeking units

received more total comments.

Table 18. Regression Model Predicting Total Comments by Support Sought

	DV: Total Comments			
	b	SE	t-value	p-value
Sought Info	-.01	1.03	-.09	.92
Sought Emotional	**.20**	**1.54**	**3.25**	**.001**
Sought Esteem	-.04	1.23	-.60	.55
Sought Network	**.13**	**1.52**	**2.02**	**.04**
Adj. R-squared		.04	.31	
F (4, 243)		**3.66**		**.007**

Table 19. Regression Model Predicting Total Comments by Content

	DV: Total Comments			
	b	SE	t-value	p-value
Self-Harm Content	.23	14.13	.32	.75
Treatment Content	.23	14.02	.32	.75
Symptom/Depression Content	.21	14.05	.27	.79
Discussion Content	.54	14.06	.41	.69
Other Content	.39	14.06	.34	.73
Adj. R-squared		-.01	3.49	
F (5, 242)		.75		.58

DISCUSSION

A large number of individuals experience symptoms of mental illness but never receive the support that they need to cope (Arnaez, 2020; NIMH, 2017). The stigmas and other negative associations (Goffman, 1963) with mental illness are salient to individuals that experience these symptoms, especially when the symptoms are severe, which decreases the likelihood of disclosure or support-seeking (Park & Ammerman, 2020; Frey & Fulginiti, 2019; Priem & Solomon, 2015). Further, individuals who experience symptoms of mental illness and do seek relevant support are likely to have received negative social reactions to their disclosure, which makes formal support seeking (e.g., via clinical or medical systems) less likely and increases the likelihood of informal support-seeking (Ahrens et al., 2009; Del Rosal et al., 2020; Park & Ammerman, 2020; Ullman, 2000) such as via online channels (Green-Hamann & Sherblom, 2014; Wright & Bell, 2003).

Recent research has demonstrated conflicting findings in that some studies show that disclosures related to self-harm can result in positive outcomes, like reduced future risk and facilitated help-seeking, but other results show that the potential for negative reactions to disclosure may lead to future self-harm (Park & Ammerman, 2020). However, more work is needed to understand which disclosure and support-seeking strategies are effective in obtaining social support, especially in the context of mental health.

The current study examined the nature of the social support offered to individuals who make the decision to disclose and seek support online. The goal was to explore the ways in which individuals disclose symptoms and seek social support related to mental health in an online depression help group. A content analysis coding protocol was developed and applied in order to categorize initial posts into indirect or direct support-seeking, disclosure strategies used,

64

and the content or nature of the issue discussed. By also categorizing the received comments by the confirming or disconfirming characteristics and types of social support offered in response, findings shed light on disclosure and support-seeking processes in the context of mental health communication.

Most initial posts had some level of support-seeking (over 60% of initial posts had at least one unit that sought social support), and over one-third (36%) contained at least one unit that mentioned depression or a specific symptom of mental illness, either experienced by the initial poster or on behalf of someone else (i.e., "how do I help my best friend when he's feeling sad and depressed?" – P_0421_1_), and about one-fifth (20.8%) included at least one unit about treatment (i.e., "anyone know any better coping mechanisms" – P_0061_3).

Results from the current study demonstrated that there is an effect of social support-seeking strategies on the social support offered to individuals that post in this online depression help group. Specifically, initial posts with a higher proportion of content about treatment were less likely to receive messages with disconfirming characteristics compared to posts with a lower proportion of content about treatment. On the other hand, initial posts with a higher proportion of content that discussed life events or experiences without connecting the experience to a mental illness symptom were more likely to get disconfirming responses. Further, initial posts with a higher proportion of content about depression or other explicit symptoms of mental illness were more likely to receive neutral messages that neither confirmed nor disconfirmed the initial post, which might indicate that support providers did not know how to respond to these types of support requests. Additional research is needed to explore the motivations of support-seekers and support providers in this context in order to understand the relationship between support-seeking strategies and support provision. Previous research indicates that support providers might not

know the best strategies for offering support in more severe situations, which might explain the large number of neutral responses. (De Rosal et al., 2020; Thompson et al., 2014).

On a similar note, regarding the relationship between initial post content and social support in the comments, initial posts with a higher proportion of self-harm or vague content received lower proportions of support units in the comments. There was a negative relationship between self-harm content and the total number of supportive units in the comments, as well as a negative relationship between self-harm content and informational social support units; such that initial posts with more self-harm content received less overall support, and specifically, less informational social support. There was a positive relationship between discussion content and emotional support, and a negative relationship between ambiguous or vague content and emotional support, which indicated that the vaguer an initial post, the less emotional support was received in the comments and more discussion content in initial posts led to more emotional support in the comments.

Regarding the relationship between social support sought in the initial post and the social support received in the comments, there was a significant positive relationship between the proportion of units that sought informational social support in the initial post and the proportion of comment units that offered informational social support and between the proportion of initial post units that sought esteem support and the proportion of esteem support units in the comments, and a significant, positive relationship between the proportion of direct units and the proportion of units that sought informational support in initial posts. These findings have implications for optimal matching models of social support, which were used as a theoretical framework for the current study, as support providers seemed to attempt to match the support they offered (e.g., the amount of informational or esteem support) to the nature of the initial

posts (e.g., whether or not informational or esteem support was sought). When individuals were direct and more clear about the goals of their support-seeking (i.e., seeking informational support using direct strategies compared to indirectly revealing more details about their experiences), they were more likely to receive informational support, which might take the form of advice or other types of information that might help them solve their problem. Additionally, there were significant, negative relationships between the proportion of initial post units that sought informational, emotional, esteem, and network support and the proportion of no support units in the comments, which indicates that initial posts with a higher proportion of social support-seeking units were more likely to receive comments with a higher proportion of units that contain social support. This finding reveals that individuals who sought support in initial posts were more likely to receive support in the comments.

The first research question explored the overlap between the support-seeking strategies used in initial post and the content expressed in those messages. Posts that sought social support, in general, were less likely to express self-harm content compared to posts that did not seek support. Initial posts that sought informational support were more likely to use direct support-seeking strategies, were more likely to express content about treatment or vague and ambiguous content, and were less likely to discuss life events without connecting them to a specific symptom of mental illness. Initial posts that sought emotional support were more likely to use indirect strategies and were more likely to contain content that discussed life events without connecting to a specific symptom, and less likely to contain vague or ambiguous content.

The second research question examined the relationship between the length of initial posts, the initial post coding categories, and comment categories. Initial posts with more words and with more units received fewer total comments. Initial posts with more units used more

direct, versus indirect support-seeking strategies, and posts with more words received a greater proportion of social support units in the comments,

The third research question investigated concepts of confirmation and social support. Specifically, analyses examined the nature and characteristics of supportive messages to see if there were patterns between the types of support offered and the characteristics of support messages. Findings show that comment units that were coded as confirming were more likely to offer emotional social support and network support but were less likely to offer informational support and esteem support. Further, comments that contained a greater proportion of neutral units were more likely to offer informational support and less likely to offer emotional support, and comments that were coded as disconfirming were more likely to offer informational support and esteem support. Many comments that were coded as confirming offered some type of social support (i.e., "we are all very proud of you, keep up the good work." – P_0314_C4), which might indicate some conceptual overlap between offering social support and using confirming support strategies. However, not all confirming messages offered support, and not all support messages were confirming. For example, it was not uncommon for comment messages to be disconfirming in nature, rejecting the viewpoint expressed in the initial post while offering informational support (i.e., "actually true clinical depression is a disease and has little to do with 'what you make it.' Get help…" – P_0453_C1), emotional support (e.g., "don't be ashamed" – P_0196_C6), or esteem support ("don't get down on yourself I guarantee you're a great person, don't dwell in the past but better yourself for the future, you got this!").

The fourth research question explored the factors that contribute to the total number of comments that initial posts received. Over a quarter of initial posts did not receive any comments. Results of the research question demonstrate that initial posts with higher proportions

of emotional and network social support sought received more total comments, but more research is necessary to determine why some initial posts receive comments and some do not.

The findings have methodological implications for content analysis research, important theoretical implications for the fields of health communication, interpersonal communication, public health, and beyond, and practical implications for current and future clinical, treatment, and support systems available for individuals experiencing symptoms of mental illness. By examining the types of responses that people typically receive when seeking support in this context, future support and treatment efforts may be improve.

Methodological Implications

The current study utilized content analysis at the thought-unit level (Dailey, 2006; Dillard & Shen, 2005; Rains & Turner, 2007). Thought units have been operationalized at the smallest segment of a conversation that can be taken out of context, and here, by analyzing data at the thought-unit level, multiple support-seeking strategies within initial posts and multiple social support types and strategies within comments could be observed. These analyses allowed certain affordances at the unit-level, at the post- and comment-levels, and then comparing across initial posts to the comments that each post received. By analyzing the data this way, comparisons were made descriptively across initial post and comment units, but the relationship of initial post strategies on social support offered in the comments was also observed via the post-to-comment level analyses.

By using the thought-unit as the unit of analysis, the coding categories used in the current study were also analyzed in multiple different ways. Analyses were able to detect the effect of the presence of the coding categories, but in addition to the presence or absence of categories in different units, posts, or comments, the proportion of the different categories was computed and

analyzed. This allowed the analyses to differentiate between posts that merely contained a mention of a coding category and posts that discussed coding categories in more detail, taking up a greater proportion of the total post or comment. For example, posts with a greater proportion of informational support-seeking units in the initial post contained a greater proportion of informational support in the comments, which demonstrates that a post that contains more informational support-seeking units was more likely to receive comments with more informational social support compared to posts that did not contain as many informational support-seeking units. This level analysis allows the comparison of posts that may have only one instance of informational support-seeking within a long post that seeks many other types of support from posts that exclusively or mostly sought informational support.

Theoretical Implications

A primary goal of the current study was to explore the disclosure and social support-seeking process for individuals experiencing symptoms of mental illness. Previous research on uncertainty and information management have adapted to more recent models of disclosure decision-making and social support processes. These findings have shown that the support-seeking and support provision processes are complex. Specifically, making the decision to disclose personal information (Afifi & Steuber, 2009; Greene, 2009; Petronio, 2002; Sunnafrank, 1988) and to seek social support (Barbee & Cunningham, 1995; Barbee et al., 1990; Collins & Feeney, 2000; Goldsmith, 2000) make individuals feel vulnerable, especially when the relevant content is potentially stigmatizing (Ahrens et al., 2009; Del Rosal et al., 2020; Park & Ammerman, 2020; Ullman, 2000). When it comes to responding to others who seek support (Cutrona, 1990; Cutrona & Suhr, 1992; Horowitz et al., 2000; Lorenzo et al., 2018; Priem &

Solomon, 2015), providers must attempt to infer the goals of the support-seeker in order to offer support that best matches the issue being faced.

More work is necessary to understand the support-seeking and support provision processes, however. The Network-episode model (Pescosolido & Boyer, 2010) attempts to account for the fact that help-seeking is complex and multi-directional, and that responses to help-seeking influence subsequent social processes (Long et al., 2015). In this model, reactions to support-seeking impact the landscape of the future help-seeking by influencing the likelihood of future support-seeking. By measuring reactions and outcomes to different types of supportive messages, future research could expand on the support-seeking and provision processes to account for different kinds of outcomes for the support-seeker or support-provider. In the current study, the model predicting the proportion of support units from the proportion of different content categories expressed in the initial posts was significant, but none of the predictor variables was significant, which raises questions about why some posts about some content categories received support, but other posts about the same content categories did not. For example, posts about self-harm content were less likely to receive support in general, and specifically, less likely to receive informational support, whereas posts that discussed life events or feelings were more likely to receive emotional support in the comments. In this context, more work is necessary to determine which content categories expressed in initial posts are more likely to receive supportive reactions in the comments.

There are also some overlaps between research in support-seeking and work in persuasion and compliance gaining. Research on compliance-gaining has conceptualized compliance-gaining strategies on dimensions that include direct to indirect and verbal to nonverbal (Harris et al., 2014; Marwell & Schmitt, 1967), similarly to conceptualizations of

disclosure and support-seeking strategies (Barbee & Cunningham, 1995; Collins & Feeney, 2000; Greene, 2009). Research on compliance-gaining strategies has reported that the methods individuals use to influence others vary in levels of directness, depending on the most salient concerns expressed in the requests (Brown & Levinson, 1978; Harris et al., 2014). Previous research has indicated that people who are concerned about getting what they want are direct and forceful with their requests, whereas people who are concerned about their public image and the face threats to themselves and others (Dobs & Blitvich, 2013; Floyd & Ray, 2017; Goffman, 1967; Goldsmith, 1992) might be more likely to use indirect strategies. Perhaps directly seeking social support is more akin to compliance-gaining or persuasion, like asking people for specific types of social support. In the current study, individuals who sought informational support were more likely to use direct support-seeking strategies and were more likely to receive informational support than those who did not seek informational support. Similarly, individuals who sought esteem support were more likely to receive esteem support compared to those who did not seek esteem support. This finding supports research that indicates individuals who are more clear about the nature of the stressor for which they are seeking support increase the likelihood of receiving effective support. When individuals seek support indirectly, support providers have to infer their goals, which makes it harder to decode and provide the right support to match their goals. These findings have implications for future work in social support provision. Work in social support has explored a "support gap hypothesis" (Xu & Burleson, 2001), investigating discrepancies between desired, sought, and received support (High & Crowley, 2018), for example. Perhaps when support-seekers are more direct about their goals, they make it easier for support providers to match their support offered to the situation that the support-seeker is experiencing.

The current study also shed light on the disconfirming and confirming nature of responses to support-seeking messages that individuals who disclose symptoms of mental health online typically receive. These results have implications for the disclosure process, confirmation theory (Dailey, 2006), and research on negative social reactions to disclosures (Ahrens et al. 2009; Park & Ammerman, 2020; Overstreet et al., Ullman, 2000). Specifically, findings show that individuals do typically receive a range of responses that may include confirming or disconfirming content, but also that a large number of responses to mental health disclosures are neutral. This result supports previous findings indicating that there may be a lack of knowledge when it comes to offering support for individuals experiencing symptoms of mental illness (Littleton, 2010; Ullman, 1999), however, the data here do not offer any reason for why individuals offered neutral responses in this context. There was no association between the proportion of content categories on the proportion of confirming, disconfirming, or neutral units offered in the comments, which raises questions as to what content categories, if any, are more likely to receive confirming versus disconfirming responses. However, disconfirming comments were more likely to offer informational and esteem support, neutral comments were more likely to offer informational and less likely to offer emotional support, and confirming comments were more likely to offer emotional support and less likely to offer informational and esteem support. Further research is necessary to expand on this finding to understand what impacts a support provider's decision to offer confirming, neutral, or disconfirming social support messages.

Optimal matching models of social support argue that support is most beneficial in certain circumstances where the support offered matches some aspect of the situation (Cutrona, 1990; Cutrona et al., 1990; Horowitz et al., 2000) or the preferences of the support-seeker (Lorenzo et al., 2018). Previous research related to matching social support has indicated that

social support does not provide the intended benefits if it does not match aspects of support-seeker preferences (Priem & Solomon, 2015), however the nature of those preferences is a concept that warrants more research. In exploring patterns of optimal matching, research has proposed that aspects related to the life stressor, including the controllability of the event, the life domain affected, the desirability or duration of consequences, and the severity of the issue at hand, for example, are all factors that might indicate certain preferences of the support-seeker that might influence the match of offered support (Cutrona, 1990; Cutrona et al., 2007; Green-Hamann & Sherblom, 2014; Merluzzi et al., 2016; Wang, 2019). The findings from the current study support research on optimal matching models by demonstrating that informational and esteem support were provided in comments more often to initial posts that were coded as seeking informational and esteem support, respectively. However, more work is necessary to determine if these types of responses to support-seeking are considered effective for the support-seeker or for support providers.

There also was a negative relationship between posts that sought informational, emotional, esteem, and network support and the proportion of comments that did not offer social support, which indicates that messages that sought social support received social support more than initial posts that did not. These findings imply that if people are clear about their goals to support providers, by using direct support-seeking strategies or referencing content about the nature of the distress situation, they may receive supportive messages that match their support-seeking messages.

Yip (2019) noted that one possible reason individuals use indirect strategies when posting online might be that they are just narrating their problems without intending to receive specific

types of social support, and that support providers might offer support regardless of whether or not support-seekers directly request specific types of support.

Practical Implications

In addition to the theoretical implications related to disclosure and social support processes, findings from the current study also have important practical implications for medical treatment and social systems available to individuals who experience symptoms of mental illness. It is clear that many people experience symptoms of mental illness, yet many of those who do fail to receive the social support that they need to cope (NIMH, 2017; Arnaez. 2020). While there have been many efforts to reduce prejudice and discrimination toward people who experience symptoms of mental health, mixed results have resulted from them (Pescosolido, 2013).

Pescosolido (2013) reported on the paradoxical nature of "progress" in U.S-based research on stigma, which claims that positive cultural change has already taken place while simultaneously reporting that stigma and associations with stereotypes, measured by concepts like feelings of public rejection and social distance, have not decreased. Individuals who experience symptoms of mental illness, especially when those symptoms are severe, (i.e., thoughts about self-harm or actual self-injury), have reported a lack of understanding from others that amplifies social stigma dynamics, even among medical professionals that are supposed to help treat the individuals that seek treatment for these symptoms (Del Rosal, 2020; Dobransky, 2019; Longden & Proctor, 2012). This might indicate a type of "support fatigue" for individuals that constantly seek, receive, or provide support for themselves or for others related to mental health issues, either formally at work or informally in their personal lives, which is similar to the concept of compassion fatigue that has been studied, especially in the context of mental health

workers (Bell et al., 2019; Ledoux, 2015; Rossi et al., 2012; Thompson et al., 2014;). Negative or neutral reactions to disclosures about mental illness may occur for a variety of reasons, but previous research has indicated a primary reason for negative reactions is lack of understanding or lack of knowledge about the issue and how to help (Littleton, 2010). The results of the current study support these claims in that the majority of comment units were neutral, not containing confirming or disconfirming characteristics, however we do not know the motivations or intentions for offering different messages. Further, initial posts with a higher proportion of content that explicitly mentioned depression or another symptom of mental illness were more likely to receive neutral messages, which might indicate that support providers do not know how to respond to these types of disclosure or support-seeking, even among a group made up of those who self-selected into a depression subReddit. Future research should explore the intent of support providers that offer neutral or disconfirming responses to different support-seeking strategies and whether or not support providers considered goals of the support-seeker when offering these kinds of supportive messages.

Disclosure related to self-harm or other symptoms of mental illness to a trusted confidant has the potential to improve psychological well-being (Chaudoir & Fisher, 2010), but some individuals report receiving disconfirming responses (i.e., being blamed or doubted) to help-seeking disclosures, which have a damaging effect on depression and well-being (Ahrens et al., 2009; Long et al., 2015; Ullman, 2000). Recent reports show that 1.3 million Americans make one or more suicide attempts per year (American Foundation for Suicide Prevention, 2018), but disclosure of a suicide attempt is associated with higher social support, which decreases subsequent self-harm factors (McClay et al., 2020). However, less than half of individuals who report experiencing severe symptoms, like non-suicidal self-injuries, for example, engage in

disclosure because of their fear of these disconfirming, negative social reactions (Park &

Ammerman (2020). McClay and colleagues (2020) reported that social support in the context of

concealable stigmatized statuses, like suicide attempt survivorship, mediates the effect that

disclosure has on further mental health symptoms (i.e., depression, perceived burdensomeness,

and thwarted belongingness). By exploring the disclosure and social support processes available

to and used by individuals that experience symptoms of mental health, future research can

further understand the positive and negative mental health outcomes associated with supportive

and unsupportive reactions to disclosure and help-seeking (Chaudoir & Fisher, 2010; Overstreet

et al., 2019). This is important because it might help in identifying individuals who are at a high

risk of receiving more negative and fewer positive reactions in the future, which could predict

who might develop worse symptoms (Ullman, 2000). Previous findings indicated that

individuals who receive negative disclosure reactions have increased negative cognitions,

enhanced feelings of self-blame, and increased stigmatizing responses, which increase reliance

on avoidant and maladaptive forms of coping (Littleton, 2010).

Park & Ammerman (2020) explored the clinical implications that responses to severe

symptoms of mental illness may have, such as avoidance, trivialization, and distancing, which all

can impede further help-seeking and lead to more extreme symptoms, but also note that social

support is indirectly associated with lower risk, lower levels of depression, and increased feeling

of acceptance. Along with the affordances of the online medium (Green-Hamann & Sherblom,

2014; Wright & Bell, 2003), and factors related to the formal treatment system available for

individuals who experience symptoms of mental illness (Dobransky, 2018; Longden & Proctor,

2012 Pescosolido, 2013), these individuals are more likely to seek help informally through

informal social support networks (Littleton, 2010; Long et al., 2015) and are more likely to use indirect strategies when seeking support (Yip, 2019).

The results of the current study contribute practical implications to this body of work in that individuals who used direct disclosure and support-seeking strategies were more likely to specifically mention depression, self-harm, or treatment options, whereas individuals who used indirect disclosure and support-seeking strategies were more likely to post vague or ambiguous content that didn't explicitly seek social support. Examples of these ambiguous types of posts include posts that identify feelings separate from depression or mental illness, describe life experiences or events, or ask questions or solicit opinions on topics not related to symptoms of mental illness or treatment. These findings indicate that the most effective way to seek social support via online help groups might depend on the goals of the support-seeker; specifically, if a support-seeker is looking for informational support, they are more likely to receive informational support in the comments if there is some indication of informational support-seeking in the initial post.

Previous research has indicated that directly seeking support involves clearly indicating to others that help is needed (Goldsmith, 2000). The findings of the current study indicate that when support-seekers are clear and direct about their goals, like those who used direct strategies and sought informational support in this context, they are more likely to receive social support that will help them in their situation. Alternatively, if support-seekers are indirect and vague about their issues, support providers might have a harder time understanding the situation to provide the necessary support. In the current study, posts that used more direct strategies were more likely to seek and receive informational social support. On the other hand, posts that sought emotional support were more likely to receive no social support in the comments.

Previous work in social support provision has indicated that support providers attempt to match support offered to preferences of the support-seeker (Cutrona, 1990; Lorenzo et al., 2018; Priem & Solomon, 2015) or to features of the life event (Cutrona & Suhr, 1992; Green-Hamann & Sherblom, 2014), but in order for this match to take place, support-seekers need to make clear the details of their goals or experiences. Previous work has examined different factors that influence the social support offered in different online support situations (Li & Feng, 2015) and has shown that people use Reddit to seek social support, often via self-disclosure (Andalibi et al., 2018; Costello et al., 2017; O'Neill, 2018; Sowles et al., 2017). The findings from this study advance this work by demonstrating that the content expressed and support-seeking strategies used in initial posts influenced some aspects of the social support offered in comments responding to those posts within a depression help subReddit.

These findings are also important because the data demonstrate the nature of support-seeking and support provision that people experience when seeking support related to experiencing symptoms of mental illness. Understanding the types of responses that these individuals typically receive when seeking support is important because it sheds light on landscape of support available. Specially, understanding the nature of responses that these individuals are used to receiving in this context could help change treatment methods to better match the preferences of these types of support-seekers. Results here indicated that messages explicitly about depression and specific symptoms of mental illness were often met with neutral support messages, indicating that support providers might not know how to respond to these kinds of issues in confirming ways. These findings have implications for training programs in mental health, indicating that more work is necessary to determine effective strategies for responding to individuals who seek support for mental health issues across both formal and

informal support systems (Levin et al., 2016; Noonan & Jomeen, 2018). Specifically, previous work has demonstrated that many individuals who seek support via formal medical systems are met with negative social reactions (Dobransky, 2019; Littleton, 2010; McClay et al., 2020; Overstreet et al., 2019), perhaps due to the stigma associated with mental illness (Pescosolido, 2013). These findings demonstrate the importance of understanding the kinds of responses that individuals typically receive when seeking support related to mental illness, especially at the clinical, medical, and formal system levels. Future research should continue to explore the concept of matching support and the differences in content, characteristics, and type of support related to different life stressors, including in the context of mental health communication, to understand the most effective ways to respond to support-seeking. The current study indicated that when individuals were direct and sought informational or esteem social support, they were more likely to receive support in comments that matched the support they sought. More work is necessary in order to determine the effectiveness of different support-seeking strategies in yielding different types of support.

Additionally, more work is needed in order to determine if seeking social support on platforms like Reddit are effective for individuals experiencing symptoms of mental illness, or in general. Previous research has utilized Reddit to investigate the support-seeking and support provision processes (Andalibi et al., 2018; Costello et al., 2017; Park & Conway, 2018), but more complex methodologies are necessary to investigate the relationship between support-seeking strategies and support offered. The findings of the current study indicated that there was some matching between the types of social support sought in initial posts and the types of support offered in the comments, especially for informational and esteem support, but future

work should measure motivations and outcomes of the different support processes at play to determine the full extent of any matching processes.

Limitations and Future Directions

A primary limitation to the current study is in the observational nature of the content analysis methodology. Specifically, the content analysis coding protocol was designed to observe initial posts and comments in response to those posts in order to categorize concepts related to disclosure and social support-seeking strategies. This design is limited in that the current study only analyzes the relationship between enacted strategies and received responses, there are no inferences that can be made regarding motivations, outcomes, or reactions to any of the messages analyzed. Therefore, the current study only captures interactions that occurred when individuals made a decision to disclose or seek social support on this specific online help group. There are several decision points that must occur in order to get to the point of posting on the r/Depression subReddit page. For example, individuals who post there might not perceive that they have support network members in which they can disclose to face-to-face, so they seek support online.

Additional research with different methodologies and designs should explore different parts of the disclosure, support-seeking, and support provision process, including pre-disclosure or support-seeking factors (e.g., individual differences, social support network composition) and outcomes of support interactions (e.g., positive versus negative responses). Future research should utilize experimental methodologies to explore the causal effect that different disclosure and support-seeking strategies may have on support responses and that support messages might have on support-seeking processes. Survey research should also be utilized to measure different concepts related to the disclosure and support-seeking processes, as well as concepts related to disclosure and support-seeking outcomes. In the current study, it is unclear whether or not

support-seeking or support provision was effective, for the ones seeking support in initial comments or for those who offered support. Specifically, whether or not there was a match between support sought in an initial post and the support offered in the comments might not determine whether or not the offered support was considered effective or ineffective for the support-seeker. There could have been negative effects, for example, if an initial post received disconfirming responses or no responses at all, or there could have been positive effects, such as reduced symptoms of mental illness. Future research designs should explore these processes in more detail by measuring motivation, intent, and outcome reactions for support-seekers and support providers.

Future studies should utilize methodologies to explore the difference in disclosure or other support-seeking strategies used for different intentions or motivations, for example, if individuals seek emotional support, what kinds of strategies are they more likely to use? The current coding scheme measured whether or not emotional support was sought in the initial post based on a coding scheme that attempted to identify the support sought based on the content of the message in the initial post, future research should measure the intent behind different support-seeking and provision messages. Similarly, support messages were coded for the types and characteristics of support offered, but the coding scheme did not capture motivations or intent of support providers. Future research should explore the intentions and motivations of support providers that offer different types of support and support of different levels of confirmation. In this context, many support messages were neutral in nature, but it cannot be inferred what the intent of the support provider was or if they just did not know what to say to the initial post, but wanted to say something.

Another limitation might be the nature of the medium, Reddit, and the people who frequently visit the specific subReddit, r/Depression. Some people might just be better or worse at seeking or offering social support compared to others, and those people might be more or less likely to visit this page to seek or offer social support. There was no user information attributed to any data in the current study, so the results do not offer any information that might indicate whether or individuals who sought support received support, if the support they received matched their support sought in any way, if the support offered was effective or not, or many other factors related to the support process in this specific context. Some individuals might be more or less likely to experience phenomena such as compassion or support fatigue (Bell et al., 2019; Ledoux, 2015; Rossi et al., 2012; Thompson et al., 2014), which might make them more or less likely to seek or provide support on this page or to respond in a certain way. Additionally, the current methodology captured one moment in time after the decision to seek support in this context had been made, and after individuals decided to respond to the posts by making a comment. There could have been additional support-seeking and additional support offered in subsequent comments or exchanges that offered support that was effective or not, which might also influence the support processes for these individuals.

Similarly, another way that the nature of the medium might have shaped the data was that there were no instances of seeking tangible social support, and very few instances of seeking network support. The characteristics of tangible social support might be better suited for other contexts, where the context of subReddit discussions do not encompass the proximity and familiarity aspects that might be necessary to seek and receive tangible support, and this specific subReddit might be the network that these users go to for support with this issue. The data in the current study, however, do support previous findings demonstrating that individuals who post in

online forms are more likely to seek support indirectly compared to using direct strategies, like directly requesting specific types of social support (Yip, 2019).

Additionally, over one quarter of initial posts did not receive any comments (26.8%). Previous research has explored why some online posts receive comments and others do not (Li & Feng, 2015; Rooderkerk & Pauwels, 2016). The content analysis methodology used in the current study fails to account for any differences between posts that received comments and posts that did not, which might have shed light on the support provision process as to why some support-seekers do not receive responses in this context. There were no differences in coding categories between initial posts that received comments and those that did not, which raises questions as to why support providers responded to some, but not other initial posts.

Conclusion

The current study expanded on the concepts of disclosure and support seeking in the context of mental health communication online. By developing and applying a content analysis coding scheme to categorize support-seeking messages for content and support-seeking strategy, and support messages for characteristics and types of support, the current study took an interactional approach to observe the effect that the strategies of individuals who posted on an online depression help group had on the social support offered in response. Results showed that there is a relationship between the social support-seeking strategies used and the support offered in response in the context of initial posts and comments in this online depression help group.

APPENDIX

APPENDIX

Coding Protocol

Goals of the Study:

The overall goal of the current study is to examine the influence that support-seeking has on the social support offered, specifically in the context of support-seeking in an online depression help group. The current coding protocol was developed to categorize initial posts by their content and type of support sought and to categorize comments by characteristics and types of the social support offered. The unit of analysis for this study is a content analysis thought unit, the smallest, meaningful part of a piece of content that can be understood out of context. By categorizing the content of initial posts and comparing the content with previously coded support-seeking strategies, and by comparing the initial post codes with new coding for micro-categories of the characteristics of social support offered in addition to previously coded types of social support and macro-categories for characteristics of support offered, the current study examined the effect of support-seeking strategies on the support offered in response. Specifically, the current coding protocol was designed to be applied to a specific subReddit community for depression help, r/Depression. This subReddit provides a unique environment in which to explore the support-seeking and support provision process from an interactional perspective by observing the support-seeking strategies used by initial posters and the types and characteristics of the support offered subsequently in the comments to the initial posts. The results of this analysis offer implications for the effects of disclosure and other support-seeking strategies and the content of support-seeking messages on the support offered.

Central Concepts:

The content units of interest for the current coding protocol are written posts and comments within the r/Depression subReddit community. Specifically, the unit of observation is a content analysis thought unit, or the smallest meaningful part of initial posts and comments. Each initial post or comment is composed of one or more thought units. Each thought unit is to be individually coded, then thought units for entire posts and entire comments can be combined to create post-level and comment-level variables.

The independent variables of interest concern the support-seeking strategies and content of the support-seeking in initial posts. Coders will code each initial post unit for the content of the post and these codes will be compared with previously coded data for support-seeking strategies. Units will be combined for each post to create post-level codes for each initial post. The dependent variables of interest concern the types and characteristics of the social support offered in comments. Each comment unit will be coded into categories for characteristics and types of support. Unit level data can be combined to create comment-level variables for each comment and post-level variables for the total codes from comments for each initial post.

The results of the current study will provide an analysis of the range of support-seeking strategies and topics covered in initial posts and the types and characteristics of support offered in comments in the r/Depression subReddit. This data will allow researchers to analyze the relationship between different support-seeking strategies used and the types and social support offered in the comments in this subReddit. Results will demonstrate implications for the support-seeking and support provision process as it relates to seeking support related to experiencing symptoms of mental illness. Although this context does not capture the entirety of the support-seeking and provision process or the range of all mental health social support-seeking or

87

provision that may occur, the current coding protocol provides a methodology for analyzing this process in this context from an interactional perspective.

Coding guidelines for the current study were adapted from previous research in person-centeredness (Burleson, 1982, 1987; High & Solomon, 2014; Jones et al., 2018; Samter & MacGeorge, 2016), confirming and disconfirming interpersonal responses (Dailey, 2006; Ellis, 2002; Frey & Fulginiti, 2017; Garvin & Kennedy, 1986; Reis & Shaver, 1988; Tong & Walther, 2015), and work on message content and seriousness (Buehler et al., 2019; MacGeorge et al., 2016; Oh & LaRose, 2016).

Variables

V1: Initial Post/Comment Number
    Brief Definition: the number of each initial post or comment
    Guidelines when to use the code: each initial post and each comment received a unique number.
    Ex.
        "P_001": first initial post
        "P_001_C1": first comment for the first initial post

V2: Unit Number
    Brief Definition: the unit number of each unit of analysis
    Guidelines when to use the code: should code the unit number for each unit coded within each initial post and each comment.
    Ex.
        "P_001_1": first initial post, first unit of analysis
        "P_001_C1_1": first comment on the first initial post, first unit of analysis

V3: Initial Post Content, Unit (IV)
    Brief Definition: the topics of the content covered in initial posts.
    Guidelines when to use the code: each initial post unit within each initial post will be coded for content.
    Measurement: (nominal) coders should first read the entirety of the initial post, and then for each initial post unit, identify the topic category that best represents the content expressed in each initial post unit.

    Levels:

    Self-Harm. The first macro-level category for initial post content captures messages regarding self-harm. Coders should include any initial post unit in this category if the unit

discusses self-harm of any sort, including thoughts about attempting self-harm, disclosure about actual attempts of self-harm, self-harm of another person, or regarding self-harm in any other way.

1: Self-harm (actual attempt). Messages expressing actual self-harm behavior attempted or successfully completed by the initial poster. Code 1 if an initial post unit identifies an actual attempt at self-harm (e.g., "I started cutting", "I had self-harmed enough in the past few days that it hurts to move").

2: Self-harm (thought/planning). Messages expressing that the initial poster is thinking about or planning to attempt to hurt themselves. Code 2 if an initial post unit expresses the initial poster's thoughts or plans about hurting themselves (e.g., "I have this overbearing feeling that I will eventually end my life", "I thought about killing myself").

3: Self-harm (other). Messages expressing that the initial poster is worried that another person is considering or actually attempted to hurt themselves. Code 3 if an initial post unit expresses that somebody who the initial poster knows is causing concern because they are thinking about or actually have been hurting themselves (e.g., "my friend started to cut", "I think my friend is hurting herself").

Treatment. The second macro-level category of initial post content includes initial post units that discuss treatment. Coders should categorize initial post units into one of the four treatment micro-level categories if the unit discusses any kind of treatment method, whether it is a consideration about treatment or disclosure about actual treatment attempts.

4: Identification of treatment (therapy). Messages that identify that an individual has participated in therapy as a method of treatment. Code 4 if an initial post unit identifies that the initial poster has participated in therapy (e.g., "I started to go see a therapist", "I was already at different docs/therapists").

5: Identification of treatment (medication). Messages that identify that an individual has consumed medication as a treatment method. Code 5 for initial post units that identify that the initial poster has taken medication (e.g., "I recently started medication (Wellbutrin XL").

6: Identification of treatment (other). Messages that identify that an individual has attempted some other type of behavior as a treatment method. Code 6 if an initial post unit identifies that the initial poster has tried some other behavior to treat their symptoms (e.g., "I have tried dieting to improve my mental health").

7: Identification of treatment (multiple methods). Messages that identify that an individual has attempted multiple behaviors (not listed as other options) as a treatment method. Code 7 if an initial post unit identifies that the initial poster has tried multiple options to treat their symptoms (e.g., "I stopped drinking and started working out," "I started going to bed earlier and walking outside").

8: Consideration of treatment (therapy). Messages that identify that an individual is thinking about considering therapy as a treatment method, but has not yet tried it. Code 8 for initial post units in which the initial poster expresses thoughts about considering therapy as a treatment option (e.g., "I want therapy, desperately tried to get an appointment", "has therapy helped anyone else out there").

9: Consideration of treatment (medication). Messages that identify that an individual is thinking about or considering medication as a treatment method, but has not yet tried it. Code 9 for initial post units in which the initial poster expresses thoughts about considering medication as a treatment option (e.g., "I am thinking about taking antidepressants").

10: Consideration of treatment (other). Messages that identify that an individual is thinking about or considering some other behavior (not listed as other options) as a treatment method, but has not yet tried it. Code 10 for initial post units that express an initial poster's thoughts about considering some other behavior as a treatment options (e.g., "I am thinking about seeing a nutritionist to help with my mental health.").

11: Consideration of treatment (multiple methods). Messages that identify that an individual is thinking about considering multiple behaviors (that are not listed as other options) as a treatment method, but has not yet tried them. Code 11 for initial post units that express an initial poster's thoughts about considering multiple methods as a treatment options (e.g., "I have considered seeing a dietician or a sleep doctor," "I have thought about working out more and spending more time outside.").

Discussion. The third macro-level initial post content category includes initial posts that discuss different aspects of the initial poster's life. Coders should include initial post units into one of the three micro-level categories if the unit discusses mental illness, other feelings, or general life experiences.

12: Identify depression/mental illness. Messages that explicitly address symptoms of mental illness felt by an individual. Code 12 for initial post units that express a symptom of mental illness that has been experienced by the initial poster (e.g., "I was recently diagnosed with dysthymia, or prolonged mild depression").

13: Identify feeling separate from depression/mental illness. Messages that imply feelings or symptoms of mental illness, without making explicit connection to a specific mental illness or symptom. Code 13 for initial post units that vaguely address feelings or symptoms related to mental illness without linking to a specific symptom (e.g., "I feel numb and super low-energy", "it makes me feel sad").

14: Identify life experiences/events. Messages that discuss life experiences or responsibilities without connecting the events to feelings or symptoms of mental illness. Code 14 for initial post units that describe life experiences without connecting them to

any feeling (e.g., "my mom wants me to clean my room", "I have a test coming up in geometry and I suck at it").

Other. The fourth macro-level initial post content category is for posts that do not discuss self-harm, treatment, or other feelings and life events. Coders should include initial post units into one of the three micro-level categories for other if they include questions or solicitations, if the units are ambiguous, or if there is no other indication of support-seeking.

15: Questions/solicitations for opinions. Messages that do not express any feelings or specific details of an individual's experiences, but solely seek information from others. Code 15 if an initial post unit does not express any feelings or life details, but asks others for information or assistance (e.g., "if anybody has experienced anything like this before, what helped you?").

16: Ambiguous/not clear. General statements with few personal details, or messages that do not express life details or seek information and do not contain any relevant content information. Code 16 if an initial post unit contains no relevant topic details or information (e.g., poems or content without explicit details, "time will come when you won't be able to hold your tears anymore").

17: No support-seeking. Messages that do not seek support in any way. Code 17 for initial post units with absolutely no indication of support-seeking.

V4: Initial Post Support Sought (Unit)
Brief Definition: The type of social support, if any, sought by the initial poster
Guidelines when to code: For each initial post, coders will read the entire post, then, for each unit, if a type of social support was sought by the initial poster, coders will categorize the unit accordingly.
Measurement: (Nominal) coders should indicate which category each initial post belongs in most appropriately. There are six categories for this variable, one for each of the five types of social support and one category for units that do not seek any type of social support.

Levels:

0: No Social Support Sought. Messages units that do not include any information that would indicate a desire for social support or seek any of the five types of social support in any way. Code 0 for initial post units that do not seek any social support, specifically, if the unit did not mention any information that is relevant to any of the five types of social support.

1: Informational Support Sought. Initial post units that seek informational social support or otherwise indicate that informational support is desired. Initial post units should be coded 1 if the unit mentions anything about seeking assistance or recommendations, or otherwise includes indirect or indirect requests for advice, factual

input, or other types of feedback about their actions or situation as a response (i.e., "what do you think I should do?" "I really need some help with this." "I don't know what to say").

2: Emotional Support Sought. Initial post units that seek emotional social support or otherwise indicate that emotional support is desired. Coders should code initial post units as a 2 if the unit expresses distress and/or includes indirect or direct requests for caring, comfort, empathy, or other messages that might improve their affect (i.e., "I am having a really hard time," "everything sucks so much.").

3: Esteem Support Sought. Initial post units that seek esteem support or otherwise indicate that esteem support is desired. Coders should code initial post units as a 3if the unit incudes indirect or direct requests for the expression of encouragement or regard for their skills, abilities, or intrinsic value (i.e., putting themselves down, "I don't think I can get through this," "I am the worst.").

4: Tangible Support Sought. Initial post units that seek tangible social support or otherwise indicate that some kind of tangible support is desired. Coders should code initial post units as a 4 if the unit includes indirect or direct requests for physical goods or services (i.e., "I have no way to make that happen," "I can't afford that.").

5: Network Support Sought. Initial post units that seek network social support or otherwise indicate that network support is desired. Coders should code initial post units as a 5 if the unit includes indirect or direct requests for belonging or affiliation (i.e., "I feel like I am alone," "nobody even cares about me.").

V5: Initial Post Word Count

Brief Definition: The total number of words in each initial post, the total number of units in each initial post, and the total number of words per unit for each initial post.
Guidelines when to code: For each initial post, the total number of words will be calculated, then the total number of units in the post will be noted, and the total number of words per unit will be calculated. These word count measures will be used for additional analyses.
Ex.
    P_001_1: 150 total words, 10 units, 15 units per word.

V6: Initial Post Strategy (Unit)

Brief Definition: The strategy used by the initial poster, in each thought unit, or unit of analysis, to express distress or seek help.
Guidelines when to code: Each thought unit within an initial post is a unit of analysis and should be coded for initial post strategy.
Measurement: (Nominal) coders should read each thought unit within each initial post and identify direct or indirect self-disclosure and support-seeking strategies. Coders should categorize thought units into the category that it best fits:

Levels:

1: Indirect. Initial post units that offer vague expressions of distress, either their own or on behalf of someone else, without connection to suffering or mental illness, or otherwise referencing any personal information that is not related to a mental illness, or that otherwise do not directly solicit information. Code 1 if an initial post expresses distress without linking the suffering to mental illness (e.g., "I'm having a really hard time"), complains about situations ("things have been rough"), sulks, or other reference to any information about themselves or their ideas, or on behalf of someone else.

2: Direct. Initial post units that use one of the two direct support-seeking strategies, either by directly expressing that a response is required or desired, specifically asking for a type of support, or by revealing explicit expressions or details about issues that convey a need for help through providing personal information specific to the distressful situation. Code 2 if an initial post uses direct questions or solicitations of advice or help (e.g., "I need help," "what should I do?"), or gives details about a problem to convey the need for help through explicit disclosure or reference to distress (e.g., I think something is wrong with my mental health," "I suffer from depression.").

V7: Degree of Confirmation

    Brief Definition: The nature of the response of the messages received from a distressed individual; the degree to which messages validate another as unique, valuable, and worthy of respect.

    Guidelines when to code: For each comment unit, code the unit by determining if the nature of the unit is disconfirming (codes 1-3), neutral (codes 4-6), or disconfirming (codes 7-9) in regard to the characteristics of the socially supportive messages.

    Measurement: (nominal) coders should first read the entire comment, then, for each comment unit, choose the coding category level that best fits.

    Levels:

    Disconfirming. Messages that disqualify the feelings expressed by a distressed individual by indicating that their perspective is not valid; communicating disaffinity through disagreements and other linguistic strategies; or otherwise showing a negative regard for another person. Code disconfirming (codes 1-3) if a comment unit has characteristics and components that challenge or reject the viewpoint or expressions offered in an initial post.

    1: Deny/reject:. Message that acknowledges the feelings expressed by a distressed individual but denies the feelings by opposing their decision to react in that way. Code 1 if a comment unit opposes or rejects expressions offered in the initial post (e.g., "you shouldn't feel that way").

    2: Insult. A message that indicates that a distressed individual is wrong for expressing the feelings offered by disqualifying their perspective. Code 2 if a comment unit attempts to

93

make an initial poster feel badly about the expressions offered in an initial post (e.g., "only an idiot would act that way", "it's dumb to feel sad").

3: Avoid interaction. Responses or nonresponses to distressed individuals, failing to acknowledge their attempt to communicate with silence, interruption, change of topic, or otherwise indicating to the distressed individual that they simply do not matter. Code 3 if a comment unit fails to respond to the content of the initial poster (e.g., blank comments, posts with no comments offered).

Neutral. Messages that do not disqualify or reject a distressed individuals' feelings, but also do not respond to the significance of the situation or their perspective. Code neutral (codes 4-6) if components and characteristics of a message neither confirm nor disconfirm the expressions offered by an initial poster.

4: Seek clarification (question). Messages that ask a distressed individual to elaborate on their feelings and perspective. Code 4 if a comment unit doesn't accept or reject the expressions of an initial poster, but asks questions or seeks additional information (e.g., "what happened leading up to that time when you started feeling that way?")

5: Discuss own experiences. Messages in which a responder discusses their own situations without linking their experience to a distressed individual's feelings or perspective. Code 5 for comment units that do not directly respond to the content in an initial post, but offer details of the commenter's own experiences (e.g., "sometimes I think I am to emotional, other times I feel hollow and unable to communicate with others").

6: Ambiguous comments. Messages in which a responder does not relate their message/opinion/suggestions to a distressed individual's feelings or perspective. Code 6 for comment units that do not have relevance or connection to the content offered in an initial post (e.g., symbols, non-English, irrelevant suggestions/advice, etc. "just hang in there,").

Confirming. Responses that respond to the significance of a situation and emotions offered by a distressed individual by communicating affinity with agreement or other linguistic strategies or showing positive regard for them, encouraging communication. Code confirming (codes 7-9) for comment units that contain components and characteristics that support or agree with the expressions offered by an initial poster.

7: Recognize/acknowledge. Messages that acknowledge and recognize the feelings of a distressed individual by agreeing with what they expressed. Code 7 for comment units that identify and agree with the appropriateness of the experience expressed in the initial post (e.g., "I can totally see how you would feel that way," "I understand that you feel that way," "me too").

8: Express significance. Messages that communicate to a distressed individual that their feelings are valid and real. Code 8 for comment units that agree with the appropriateness

and make note of the importance or weight of the expressions from an initial poster (e.g., "Of course you feel that way, this is a serious issue and your response is understandable," "who wouldn't be?" "anyone else would feel that way, too").

 9: Solicit views. Messages that ask for a distressed individual's opinion and solicits their viewpoint. Code 9 for comment units that not only legitimize the expressions offered, but attempt to get an initial poster to elaborate or understand their feelings or perspective more or that ask questions or solicit information that is in line with or in other ways confirms the viewpoint of the initial poster (e.g., "I feel like that all of the time, too, it is perfectly okay to react like that. I usually try to think about other important things going on in my life, do you have anything else going on right now?").

V8: Comment Support Offered (Unit)

Brief Definition: The type of social support offered in each unit of analysis

Guidelines when to code: For each unit of analysis within each comment to an initial post, code the type of social support offered in the unit. If a unit does not offer any social support, it should be coded a "0", for "no social support".

Measurement: (Nominal) Each unit of analysis within each first comment to an initial post should be coded for no support (0), informational support (1), emotional support (2), esteem support (3), tangible support (4), or network support (5).

Levels:

0: No social support. Messages with no social support offered. Code 0 for comment units that do not respond to the initial post in a way that offered any of the types of social support (e.g., irrelevant responses)

1: Informational support. Comment units that attempt to provide assistance to a distressed individual by offering recommendations of providing information about how to respond to a situation**.** Coders should code "1" for comment units that offer advice (e.g., "you should try cutting out social media," "you should start seeing a therapist," "you should go on more walks."), factual input (e.g., "if you don't talk about it, it will get worse,"), or feedback on actions (e.g., "you probably would be better off trying therapy," "you should try to get outside more.").

2: Emotional support. Comment units that attempt to help a distressed individual by expressing sympathy or comfort. Coder should code "2" for comment units that attempt to improve the affect of the initial poster by expressing caring, concern, or empathy (e.g., "I am here for you", "it hurts to hear your pain," "I wish you were happier").

3: Esteem support. Comment units that attempt to provide aid to a distressed individual by making them feel validated or trying to improve their feelings of self-worth. Coders should code "3" for comment units that express appreciation for the skills and abilities of the initial poster or otherwise express the poster's intrinsic value (e.g., "you can do it," "you are amazing.").

4: Tangible support. Comment units that offer assistance by attempting to provide access to physical goods or providing services. Coders should code "4" for comment units that express the desire to provide goods or services to the initial poster (e.g., "I can drive you to get groceries," "I will pay for your appointment.").

5: Network support. Comment units that offer expressions of belonging or affiliation to a larger group of similar individuals who can also offer support. Coders should code "5" for comment units that express a sense of belonging or invitation to a group of similar individuals (e.g., "you are not alone," "keep posting here – we appreciate your comments.").

V9: Comment Word Count

Brief Definition: The total number of words, the total number of units, and the total number of words per unit in each comment.

Guidelines when to code: For each comment, the total number of words will be calculated, then the total number of units in the comment will be noted, and the total number of words per unit in each comment will be calculated.

Ex.

P_001_C1: 100 total words, 5 units, 20 words per unit.

REFERENCES

REFERENCES

Afifi, W. A. (2010). Uncertainty and information management in interpersonal contexts. In S. W. Smith & S. Wilson (Eds.), *New directions in interpersonal communication research* (p. 94-114). Thousand Oaks, CA: Sage. https://doi.org/10.4135/9781483349619.n5

Afifi, T., & Steuber, K. (2009). The revelation risk model (RRM): Factors that predict the revelation of secrets and the strategies used to reveal them. *Communication Monographs, 76,* p. 144-176. https://doi.org/10.1080/03637750902828412

Ahrens, C. E., Cabral, G., & Abeling, S. (2009). Healing or hurtful: Sexual assault survivors' interpretations of social reactions from support providers. *Psychology of Women Quarterly*, *33*, 81-94. https://doi.org/10.1111/j.1471-6402.2008.01476.x

Andalibi, N., Haimson, O. L., DeChoudhury. M., & Forte, A. (2018). Social support, reciprocity, and anonymity in responses to sexual abuse disclosures on social media. *ACM Transactions on Computer-Human Interaction*, *25*, 1-35. https://doi.org/10.1145/3234942

Arnaez, J. M., Krendl, A. C., McCormick, B. P., Chen, Z., & Chomistek, A. K. (2020). The association of depression stigma with barriers to seeking mental health care: A cross-sectional analysis. *Journal of Mental Health*, *29*, 182-190. https://doi.org/10.1080/09638237.209.1644494

Barbee, A. P., & Cunningham, M. R. (1995). An experimental approach to social support communications: Interactive coping in close relationships. *Annals of the International Communication Association, 18*, 381-413. https://doi.org/10.1080/23808985.1995.11678921

Barbee, A. P., Derlega, V. J., Sherburne, S. P., & Grimshaw, A. (1998). Helpful and unhelpful forms of social support for HIV-positive individuals. In V. J. Derlega & A. P. Barbee (Eds.), *HIV and social interaction* (pp. 83-105). Thousand Oaks, CA: SAGE Publications.

Barbee, A. P., Gulley, M. R., & Cunningham, M. R. (1990). Support seeking in personal relationships. *Journal of Social and Personal Relationships, 7,* 531-540. https://doi.org/10.1177/0265407590074009

Bell, R. A., Franks, P., Duberstein, P. R., Epstein, R. M., Feldman, M. D., Fernandez y Garcia, E., & Kravitz, R. L. (2011). Suffering in silence: Reasons for not disclosing depression in primary care. *Annals of Family Medicine,* 9, 439-446. https://doi.org/10.1370/afm.1277

Bell, S., Hopkin, G., & Forrester, A. (2019). Exposure to traumatic events and the experience of burnout, compassion fatigue and compassion satisfaction among prison mental health staff: An exploration survey. *Issues in Mental Health Nursing*, *40*, 304-309. https://doi.org/10.1080/01612840.2018.1534911

Belle, D. E. (1982). The stress of caring: Women as providers of social support. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress* (pp. 495-505). New York: Free Press.

Bodie, G. D., Vickery, A. J., Cannava, K., & Jones, S. M. (2015). The role of "active listening" in informal helping conversations: Impact on perceptions of listener helpfulness, sensitivity, and supportiveness and discloser emotional improvement. *Western Journal of Communication, 79,* 151-173. https://doi.org/10.1080/10570314.2014.943429

Boster, F. J., Rodriguez, J. I., Cruz, M. G., Marshall, L. (1995). The relative effectiveness of a direct request message and a pregiving message on friends and strangers. *Communication Research*, *22*, 475-484. https://doi.org/10.1177/009365095022004005

Brown, G. W., & Harris, T. (1978). *Social origins of depression.* New York: Free Press.

Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language use*. Cambridge, England: Cambridge University Press.

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 and Society, 21,* 2566-2588. https://doi.org/10.1177/1471444819853821

Buehler, E. M., Peterson, A. M., High, A. C. (2018). Investigating the role of problem severity and channel publicness on the sophistication of support-seeking messages on social network sites: A replication study. *Communication Studies, 69,* 304-313. https://doi.org/10.1080/10510974.2018.1463275

Burla, L., Knierim, B., Barth, J., Liewald, K., Guetz, M., & Abel, T. (2008). From text to codings: Intercoder reliability assessment in qualitative content analysis. *Nursing Research, 57,* 113-117. https://doi.org/10.1097/01.nnr.0000313482.33917.7d

Burleson, B. (1982). The development of comforting communication skills in childhood and adolescence. *Child Development, 53,* 1578-1588. https://doi.org/10.2307/1130086

Burleson, B. R. (1985). The production of comforting messages: Social-cognitive foundations. *Journal of Language and Social Psychology, 4,* 253-273. https://doi.org/10.1177/0261927x8543006

Burleson, B. R. (1987). Cognitive complexity. In J. C. McCroskey & J. A. Daly (Eds.), *Personality and interpersonal communication* (pp. 305–349). Newbury Park, CA: Sage. https://doi.org/10.2307/1130086

Burleson, B. R. (2003). Emotional support skill. In J. O. Greene & B. R. Burleson (Eds.), *Handbook of communication and social interaction skills* (pp. 551-594). Mahwah, NJ: Erlbaum.

Burleson, B. R., & Gooldsmith, D. J. (1998). How the comforting process works: Alleviating emotional distress through conversationally induced reappraisals. In P. Andersen & L. K. Guerrero (Eds.), *Handbook of communication and emotion* (pp. 245-280). San Diego, CA: Academic Press.

Chang, P. F., & Bazarova, N. N. (2016). Managing stigma: Disclosure-response communication patterns in pro-anorexic websites. *Health Communication, 31,* 217-229. https://doi.org/10.1080/10410236.2014.946218

Chaudoir, S. R., & Fisher, J. D. (2010). The disclosure processes model: Understanding disclosure decision making and post-disclosure outcomes among people living with a concealable stigmatized identity. *Psychological Bulletin, 136,* 236-256. https://doi.org/10.1037/a0018193

Chew, R., Keryl, C., Baum, L., Bukowski, T., Kim, A., & Navarro, M. (2021). Predicting age groups of Reddit users based on posting behavior and metadata: Classification model development and validation. *JMIR Public Health and Surveillance*, *7*, 1-13. https://doi.org/10.2196/25807

Choi, S. Y., Venetis, M. K., Greene, K., Magsamen-Conrad, K., Checton, M. G., & Banerjee, S. C. (2016). Planning a stigmatized nonvisible illness disclosure: Applying the disclosure decision-making model. *The Journal of Psychology, 150,* 1004-1025. https://doi.org/10.1080/00223980.2016.1226742

Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology, 55,* 591-621. https://doi.org/10.1146/annurev.psych.55.090902.142015

Cissna, K., & Sieburg, E. (1981). Patterns of interactional confirmation and disconfirmation. In C. Wilder-Mott & J. H. Weakland (Eds.), *Rigor and imagination: Essays from the legacy of Gregory Bateson* (p. 253-282). New York, NY: Praeger.

Clark-Gordon, C. V., Bowman, N. D., Goodboy, A. K., & Wright, A. (2019). Anonymity and online self-disclosure: A meta-analysis. *Communication Reports, 32,* 98-111. https://doi.org/10.1080/08934215.2019.1607516

Cohen, S., Gottlieb, B. H., & Underwood, L. G. (2000). Social relationships and health. In S. Cohen, L. G. Underwood & B. H. Gottlieb (Eds.), *Social support measurement and intervention* (pp. 3-25). New York, NY: Oxford University Press.

Collins, N. L., & Feeney, B. C. (2000). A safe haven: An attachment theory perspective on support seeking and caregiving in intimate relationships. *Journal of Personality and Social Psychology, 78,* 1053-1073. https://doi.org/10.1037//0022-3514.6.1053

Costello, K. L., Martin, J. D., & Brinegar, A. E. (2017). Online discourse of illicit information: Information behaviors in two drug forums. Journal of the Association for Information Science and Technology, 68, 2439-2448. https://doi.org/10.1002/asi.23880

Cutrona, C. E. (1990). Stress and social support: In search for optimal matching. *Journal of Social and Clinical Psychology*, *9*, 3-14. https://doi.org/10.1521/jscp.1990.9.1.3

Cutrona, C. E., Cohen, B. B., & Igram, S. (1990). Contextual determinants of the perceived supportiveness of helping behaviors. *Journal of Social and Personal Relationships, 7,* 553-562. https://doi.org/10.1177/0265407590074011

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

Cutrona, C. E., Shaffer, P. A., Wesner, K. A., & Gardner, K. A. (2007). Optimally matching support and perceived spousal sensitivity. *Journal of Family Psychology*, *21*, 754-758. https://doi.org/10.1037/0893-3200/21.4.754

Cutrona, C. E., & Suhr, J. A. (1992). Controllability of stressful events and satisfaction with spouse support behaviors. *Communication Research, 19,* 154-174. https://doi.org/10.1177/009365092019002002

D'Agostino, A. R., Optican, A. R., Sowles, S. J., Krauss, M. J., Lee, K. E., & Cavazos-Rehg, P. A. (2017). Social networking online to recover from opioid use disorder: A study of community interactions. *Drug and Alcohol Dependence, 181,* 5-10. https://doi.org/10.1016/j.drugalcdep.2017.09.010

Dailey, R. M. (2006). Confirmation in parent-adolescent relationships and adolescent openness: Toward extending confirmation theory. *Communication Monographs, 73,* 434-458. https://doi.org/10.1080/03637750601055432

Del Rosal, E., Gonzalez-Sanguino. C., Bestea, S., Boyd, J., & Munoz, M. (2020). Correlates and consequences of internalized stigma assessed through the internalized stigma of mental illness scale for people living with mental illness: A scoping review and meta-analysis from 2010. *Stigma and Health*. https://doi.org/10.1037/sah0000267

Dillard, J. P., & Shen, L. (2005). On the nature of reactance and its role in persuasive health communication. *Communication Monographs, 72,* 144-168. https://doi.org/10.1080/03637750500111815

Dobransky, K. M. (2019). Breaking down walls, building bridges: Professional stigma management in mental health care. *Society and Mental Health*, *9*, 228-242. https://doi.org/10.1177/2156869317750705

Dobs, A. M., Blitvich, P. G. (2013). Impoliteness in polylogal interaction: Accounting for face-threat witnesses' responses. *Journal of Pragmatics*, *53*, 112-130. https://doi.org/10.1016/j.pragma.2013.05.002

Dumont, M., & Provost, M. A. (1999). Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth and Adolescence, 78,* 343-363. https://doi.org/10.1023/a:1021637011732

Dunkel-Schetter, C., & Skokan, L. A. (1990). Determinants of social support provision in personal relationships. *Journal of Social and Personal Relationships, 7,* 437-450. https://doi.org/10.1177/0265407590074002

Ellis, K. (2000). Perceived teacher confirmation: The development and validation of an instrument and two studies of the relationship to cognitive and affective learning. *Human Communication Research*, *26*, 2-64-291. https://doi.org/10.1093/hcr/26.2.264

Ellis, K. (2002). Perceived parental confirmation: Development and validation of an instrument. *Southern Communication Journal,* 67, 319-334.

Eskin, M. (2003). A cross-cultural investigation of the communication of suicidal intent in Swedish and Turkish adolescents. *Scandinavian Journal of Psychology, 44,* 1-6. https://doi.org/10.1111/1467-9450.t01-1-00314

Feng, B. (2009). Testing an integrated model of advice-giving in supportive interactions. *Human Communication Research, 35*, 115-129. https://doi.org/10.1111/j.1468-2958.2008.01340.x

Fang, J., Chen, L., Wang, X., & George, B. (2018). Not all posts are treated equal: An empirical investigation of post replying behavior in an online travel community. *Information & Management*, *55*, 890-900. https://doi.org/10.1016/j.im.2018.04.003

Feng, B., & Feng, H. (2013). Examining cultural similarities and differences in responses to advice: A comparison of American and Chinese college students. *Communication Research*, 40, 623-644. https://doi.org/10.1177/0093650211433826

Floyd, K., & Ray, C. D. (2017). Thanks, but no thanks: Negotiating face threats when rejecting offers of unwanted social support. *Journal of Social and Personal Relationships*, *34,* 1260-1276. https://doi.org/10.1177/0265407516673161

Frey, L. M., & Fulginiti, A. (2017). Talking about suicide may not be enough: Family reaction as a mediator between disclosure and interpersonal needs. *Journal of Mental Health, 26,* 366-372. https://doi.org/10.1080/09638237.2017.1340592

Fukkink, R. (2011). Peer counseling in an online chat service: A content analysis of social support. *Cyberpsychology, Behavior, and Social Networking, 14,* 247-251. https://doi.org/10.1089/cyber.2010.0163

Fulginiti, A., & Frey, L. M. (2019). Exploring suicide-related disclosure motivation and the impact on mechanisms linked to suicide. *Death Studies*, *43*, 562-569. https://doi.org/10.1080/07481187.2018.150439

Garvin, B. J., & Kennedy, C. W. (1986). Confirmation and disconfirmation in nurse/physician communication. *Journal of Applied Communication Research, 14,* 1-19. https://doi.org/10.1080/00909888609360300

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

Goffman, E. (1967). *Interaction Ritual: Essays on Face to Face Behavior*. New York, NY, Pantheon.

Goldsmith, D. J. (1992). Managing conflicting goals in supportive interactions: An integrative theoretical framework. Communication Research, 19, 264–286. https://doi.org/10.1177/009365092019002007

Goldsmith, D. J. (2000). Soliciting advice: The role of sequential placement in mitigating face threat. *Communications Monographs, 67,* 1-19. https://doi.org/10.1080/03637750009376492

Goldsmith, D. J. (2004). *Communicating social support.* New York, NY: Cambridge University Press.

Green-Hamann, S., & Sherblom, J. C. (2014). The influences of optimal matching and social capital on communicating support. *Journal of Health Communication*, *19*, 1130-1144. https://doi.org/10.1080/10810730.2013.864734

Greene, K. (2009). An integrated model of health disclosure decision-making. In T. D. Afifi & W. A. Afifi (Eds.), *Uncertainty and information regulation in interpersonal contexts: Theories and applications* (p. 226-253). New York, NY: Routledge.

Harris, S., Monahan, J. L., & Hovick, S. R. (2014). Communicating new sexual desires and the factors that influence message directness. *Sexual and Relationship Therapy*, *29*, 405-423. https://doi.org/10.1080/14681994.2014.954992

Haythornthwaite, C., Kumar, P., Gruzd, A., Gilbert, S., del Valle, M. E., & Paulin, D. (2018). Learning in the wild: Coding for learning and practice on Reddit. *Learning, Media, and Technology, 43,* 219-235. https://doi.org/10.1080/17439884.2018.1498356

Hefner, J., & Eisenberg, D. (2009). Social support and mental health among college students. *American Journal of Orthopsychiatry, 79,* 491-499. https://doi.org/10.1037/a0016918

High, A. C., Crowley, J. L. (2018). Gaps among desired, sought, and received support: Deficits and surpluses in support when coping with taboo marital stressors. *Communication Research*, *45*, 319-338. https://doi.org/10.1177/009365021562975

High, A. C., & Dillard, J. P. (2012). A review and meta-analysis of person-centered messages and social support outcomes. *Communication Studies, 63,* 99-118. https://doi.org/10.1080/10510974.2011.598208

High, A. C., & Scharp, K. M. (2015). Examining family communication patterns and seeking social support direct and indirect effects through ability and motivation. *Human Communication Research, 41,* p. 459-479. https://doi.org/10.1111/hcre.12061

High, A. C., & Solomon, D. H. (2014). Communication channel, sex, and the immediate and longitudinal outcomes of verbal person-centered support. *Communication Monographs, 81*, 439-468. https://doi.org/10.1080/03637751.2014.933245

High, A. C., & Young, R. (2018). Supportive communication from bystanders of cyberbullying: Indirect effects and interactions between source and message characteristics. *Journal of Applied Communication Research*, 46, 28-51. https://doi.org/10.1080/00909882.2017.1412085

Hollenbaugh, E. E., & Everett, M. K. (2013). The effects of anonymity on self-disclosure in blogs: An application of the online disinhibition effect. *Journal of Computer-Mediated Communication, 18,* 283-302. https://doi.org/10.1111/jcc.4.12008

Holmstrom, A. J. (2012). What helps – and what doesn't – when self-esteem is threatened?: Retrospective reports of esteem support. *Communication Studies, 63,* 77-98. https://doi.org/10.1080/10510974.2011.586399

Holmstrom, A. J., & Burleson, B. R. (2011). An initial test of a cognitive-emotional theory of esteem support messages. *Communication Research, 38,* 326-355. https://doi.org/10.1177/0093650210376191

Horowitz, L. M., Krasnoperova, E. N., Tater, D. G., Hansen, M. B., Person, E. A., Galvin, K. L., & Nelson, K. L. (2000). The way to console may depend on the goal: Experimental studies of social support. *Journal of Experimental Social Psychology*, 37, 49–61. https://doi.org/10.1006/jesp.2000.1435

Jones, S. M., Bodie, G. D., Youngvorst, L., Navarro, M., & Danielson, C. (2018). Mapping the terrain of person-centered supportive conversations. *Communication Monographs, 85,* 467-490. https://doi.org/10.1080/03637751.2018.1501503

Koizumi, Y., Awata, S., Kuriyama, S., Ohmori, K., Hozawa, A., Seki, T., … Tsuji, I. (2005). Association between social support and depression status in the elderly: Results of a 1-year community-based prospective cohort study in Japan. *Psychiatry and Clinical Neurosciences, 59,* 563-569. https://doi.org/10.1111/j.1440-1819.2005.0415.x

Koslowski, B., Marasia, J., Vermeylen, F., & Hendrix, V. (2013). A disconfirming strategy is not necessarily better than a confirming strategy. *The American Journal of Psychology, 126,* 335-354. https://doi.org/10.5406/amerjpsych.126.3.0335

Krippendorff, K. (2004). Measuring the reliability of qualitative text analysis data. *Quality & Quantity, 38,* 787-800. https://doi.org/10.1007/s11135-004-8107-7

Krippendorff, K., Mathet, Y., Bouvry, S., & Widlocher, A. (2016). On the reliability of unitizing textual continua: Further developments. *Quality & Quantity, 50,* 2347-2364. https://doi.org/10.1007/s11135-015-0266-1

Lacy, S. & Riffe, D. (1996). Sampling error and selecting intercoder reliability samples for nominal content categories. *Journalism & Mass Communication Quarterly, 73,* 963-973. https://doi.org/10.1177/107769909607300414

Lacy, S., Watson, B. R., Riffe, D., & Lovejoy, J. (2015). Issues and best practices in content analysis. *Journalism & Mass Communication Quarterly, 94,* 791-811. https://doi.org/10.1177/1077699015607338

Laing, D. (1961). *The self and others.* New York: Panthem.

Ledoux, K. (2015). Understanding compassion fatigue: understanding compassion. *Journal of Advanced Nursing*, *71*, 2041-2050. https://doi.org/10.1111/jan.12686

Lee, H. E., & Cho, J. (2019). Social media use and well-being in people with physical disabilities: Influence of SNS and online community uses on social support, depression, and psychological disposition. *Health Communication, 34,* 1043-1052. https://doi.org/10.1080/10410236.2018.1455138

Levin, M. E., Hayes, S. C., Pistorello, J., & Seeley, J. R. (2016). Web-based self-help for preventing mental health problems in universities: Comparing acceptance and commitment training to mental health education. *Journal of Clinical Psychology*, *73*, 207-225. https://doi.ord/10.1002/jclp.22254

Li, S., & Feng, B. (2015). What to say to an online support-seeker? The influence of others' responses and support-seekers' replies. *Human Communication Research*, *41*, 303-326. https://doi.org/10.1111/hcre.12055

Littleton, H. L. (2010). The impact of social support and negative disclosure reactions on sexual assault victims: A cross-sectional and longitudinal investigation. *Journal of Trauma and Dissociation*, *11*, 210-227. https://doi.org/1080/15299730903502946

Long, M., Manktelow, R., Tracey, A. (2015). The healing journey: help seeking for self-injury among a community population. *Qualitative Health Research*, *25*, 932-944. https://doi.org/10/1177/1049734314554092

Longden, E., & Proctor, G. (2012). A rationale for service responses to self-injury. *Journal of Mental Health*, *21*, 15-22. https://doi.org/10.3109/09638237.2011.608744

Lorenzo, J. M., Barry, R. A., & Khalifian, C. E. (2018). More or less: Newlyweds' preferred and received social support, affect, and relationship satisfaction. *Journal of Family Psychology*, *32*, 860-872/ https://doi.org/10.1037/fam0000440

MacDonald, P. L. & Gardner, R. C. (2000). Type I error rate comparisons of post hoc procedures for I j chi-square tables. *Educational and Psychological Measurement, 60,* 735-754. https://doi.org/10.1177/00131640021970871

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

MacGeorge, E. L., Feng, B., & Guntzviller, L. M. (2016). Advice: Expanding the communication paradigm. *Annals of the International Communication Association, 40*, 213-243. https://doi.org/10.1080/23808985.2015.11735261

MacGeorge, E. L., Feng, B., & Thompson, E. R. (2008). "Good" and "bad" advice: How to advise more effectively. In M. T. Motley (Ed.), *Studies in applied interpersonal communication* (pp. 145-164). Thousand Oaks, CA: Sage.

MacGeorge, E. L., Guntzviller, L. M., Hanasono, L. K., & Feng, B. (2016). Testing advice response theory in interactions with friends. *Communication Research, 43,* 211-231. https://dooi.org/10.1177/0093650213510938

Marwell, G., & Schmitt, D. R. (1967). Compliance-gaining behavior: A synthesis and model. *The Sociological Quarterly*, *8*, 317-328. https://doi.org/10.1111/j.1533-8525.1967.tb01059

McClay, M. M., Brausch, A. M., & O'Connor, S. S. (2020). Social support mediates the association between disclosure of suicide attempt and depression, perceived burdensomeness, and thwarted belongingness. *Suicide and Life-Threatening Behavior*, *50.* https://doi.org/10.1111/sltb.12622

McGuire, W. J. (1960). Cognitive consistency and attitude change. *Journal of Abnormal and Social Psychology, 60,* 345-353. https://doi.org/10.1037/h0048563

Mehta, N., & Atreja, A. (2015). Online social support networks. *International Review of Psychiatry*. *27*, 118-123. https://doi.org/10.3109/09540261.2015.1015504

Merluzzi, T. V., Philip, E. J., Yang, M., & Heitzmann, C. A. (2016). Matching of received social support with need for support in adjusting to cancer and cancer survivorship. *Psycho-Oncology*, 25, 684-690. https://doi.org/10.1002/pon.3896

Mojzisch, A. Kerschreiter, R., Faulmuller, N., Vogelgesang, F., & Schulz-Hardt. (2014). The consistency principle in interpersonal communication: Consequences of preference confirmation and disconfirmation in collective decision making. *Journal of Personality and Social Psychology, 106,* 961-977. https://doi.org/10.1037/a0036338

National Institute of Mental Health (2017). Major Depression. Retrieved March 30, 2021 from https://www.nimh.nih.gov/health/statistics/major-depression.shtml

Noonan, M., & Jomeen, J. (2018) Public health nurses' perinatal mental health training needs: A cross sectional survey. *Journal of Advanced Nursing, 75*, 2535-2547. https://doi.org/10.1111/jan/14013

O'Dea, B., Achilles, M. R., Larsen, M. E., Batterham, P. J., Calear, A. L., & Christensen, H. (2018). The rate of reply and nature of responses to suicide-related posts on Twitter. *Internet Interventions*, *13*, 105-107. https://doi.org/101016/j.invent.2018.07.004

O'Neill, T. (2018). 'Today I speak': Exploring how victim-survivors use Reddit. *International Journal for Crime, Justice and Social Democracy*, *7*, 44-59. https://doi.org/10.5204/ijcjsd.v7i1.402

Oh, H. J., & LaRose, R. (2016). Impression management concerns and support-seeking behavior on social network sites. *Computers in Human Behavior, 57,* 38-47. https://doi.org/10.1016/j.chb.2015.12.005

Oleinik, A., Popova, I., Kirdina, S., & Shatalova, T. (2014). On the choice of measures of reliability and validity in content-analysis of texts. *Quality and Quantity, 48,* 2703-2718. https://doi.org/10.1007/s11135-013-9919-0

Overstreet, N. M., Willie, T. C., & Sullivan, T. P. (2019). Stigmatizing reactions versus general negative reactions to partner violence disclosure as predictors of avoidance coping and depression. *Journal of Interpersonal Violence*. https://doi.org/10.1177/0886260516653753

Pan, W., Feng, B., & Wingate, V. S. (2018). What you say is what you get: How self-disclosure in support seeking affects language use in support provision in online support forums. *Journal of Language and Social Psychology, 37,* 3-27. https://doi.org/10.1177/0261927X17706983

Park. Y., & Ammerman, B. A. (2020). How should we respond to non-suicidal self-injury disclosures? An examination of perceived reactions to disclosure, depression, and suicide risk. *Psychiatry Research*, *293*, 11340. https://doi.org/10.1016/j.psychres.2020.113430

Park, A., Conway, M. (2018). Harnessing Reddit to understand the written-communication challenges experienced by individuals with mental health disorders: Analysis of texts from mental health communities. *Journal of Medical Internet Research*, *20*, e121. https://doi.org/10.2196/jmir.8219

Park, A., Conway. M., & Chen, A. T. (2018). Examining thematic similarity, difference, and membership in three online mental health communities from reddit: A text mining and visualization approach. *Computers in Human Behavior, 78,* 98-112. https://doi.org/10.1016/j.chb.2017./09.001

Paukert, A. L., & Pettit, J. W. (2007). Interpersonal reactions to suicide attempt: The role of respondent causal attributions. *Suicide and Life-Threatening Behavior, 37,* 641-647. https://doi.org/10.1521/suli.2007.37.6.641

Pescosolido, B. A. (2013). The public stigma of mental illness: What do we think, what do we know, what can we prove? *Journal of Health and Social Behavior*, *54*, 1-21. https://doi.org/10.1177/0022146512471197

Petronio, S. (2002). *Boundaries of privacy: Dialectics of disclosure.* Albany, NY: SUNY Press.

Pilkington, P. D., & Rominov, H. (2017). Fathers' worries during pregnancy: A qualitative content analysis of Reddit. The Journal of Perinatal Education, 26, 208-218. https://doi.org/10.1891/1058-1243.26.4.208

Priem, J. S., & Solomon, D. H. (2015). Emotional support and physiological stress recovery: The role of support matching, adequacy, and invisibility. *Communication Monographs*, *82*, 88-112. https://doi.org/10.1080/03637751.2014.971416

Potter, W. J., & Levine-Donnerstein, D. L. (1999). Rethinking validity and reliability in content analysis. *Journal of Applied Communication Research, 27,* 258-284. https://doi.org/10.1080/00909889909365539

Rains, S. A., & Turner, M. M. (2007). Psychological reactance and persuasive health communication: A test and extension of the intertwined model. *Health Communication Research, 33,* 241-269. https://doi.org/10.1111/j.1468-2958.2007.00298.x

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*, 209-336. https://doi.org/10.1111/j.1468-2958.2009.01353.x

Reddit (2020). About. Retrieved from https://www.redditinc.com

Reis, H. T., & Shaver, P. (1988). Intimacy as an interpersonal process. In S. Duck, D. F. Hay, S. E. Hobfoll, W. Ickes & B. M. Montgomery (Eds.), *Handbook of personal relationships: Theory, research and interventions* (p. 367-389). Oxford, UK: John Wiley.

Rooderkerk, R. P., & Pauwels, K. H. (2016). No comment?! The drivers of reactions to online posts in professional groups. *Journal of Interactive Marketing*, *35*, 1-15. https://doi.org/10.1016/j.intmar.2015.12.003

Rossi, A., Cetrano, G., Pertile, R., Rabbi, L., Donisi, V., Grigoletti, L., Curtolo, C., Tansella, M., Thornicroft, G., & Amaddeo, F. (2012). Burnout, compassion fatigue, and compassion satisfaction among staff in community-based mental health services. *Psychiatry Research*, *200*, 933-938. https://doi.org/10.1016/j.psyches.2012.07.029

Rubin, M., Evans, O., & Wilkinson, R. B. (2016). A longitudinal study of the relations among university students' subjective social status, social contact with university friends, and mental health and well-being. *Journal of Social and Clinical Psychology, 35,* 722-737. https://doi.org/10.1521/jscp.2016.35.9.722

Rusch, N., Brohan, E., Gabbidon, J., Thornicroft, G., & Clement, S. (2014). Stigma and disclosing one's mental illness to family and friends. *Social Psychiatry and Psychiatric Epidemiology, 49,* 1157-1160. https://doi.org/10.1007/s00127-014-0871-7

Samter, W., & MacGeorge, E. L. (2016). Coding comforting behavior for verbal person centeredness. In D. J. Canary & A. VanLear (Eds.), *Researching communication interaction behavior: A sourcebook of methods and measures* (pp. 107-128). Thousand Oaks, CA: Sage.

Segrin, C. (2003). Age moderates the relationship between social support and psychosocial problems. *Human Communication Research, 29,* 317-342. https://doi.org/10.1111/j.1468-2958.2003.tb00842.x

Sharma, R., Wigginton, B., Meurk, A., Ford, P., & Gartner, C. E. (2017). Motivations and limitations associated with vaping among people with mental illness: A qualitative analysis of Reddit discussions. *International Journal of Environmental Research and Public Health, 14,* 7-22. https://doi.org/10.3390/ijerph14010007

Shen, L. (2019). Features of empathy-arousing strategic messages. *Health Communication*, *34*, 1329-1339. https://doi.org/10.1080/10410236.2018.1485078

Shen, L., & Seung, S. (2018). On measures of message elaboration in narrative communication. *Communication Quarterly*, *66*, 79-95. https://doi.org/10.1080/01463373.2017.1334682

Sieburg, E. (1985). *Family Communication: An integrated systems approach.* New York: Gardner Press, Inc.

Sowles, S. J., Krauss, M. J., Gebremedhn, L., & Cavazos-Rehg, P. A. (2017). "I feel like I've hit the bottom and have no idea what to do": Supportive social networking on Reddit for individuals with a desire to quit cannabis use. Substance Abuse, 38, 477-482. https://doi.org/10.1080/08897077.2017.1354956

Sunnafrank, M. (1988). Predicted outcome value in initial conversations. *Communication Research Reports, 5,* 169-172. https://doi.org/10.1080/08824098809359819

Thompson, I. A., Amatea, E. S., & Thompson, E. S. (2014). Personal and contextual predictors of mental health counselors' compassion fatigue and burnout. *Journal of Mental Health Counseling*, *36*, 58-77. https://doi.org/10.17744/mehc.36.1.p61.m73373m4617r3

Tong, S. T., & Walther, J. B. (2015). The confirmation and disconfirmation of expectancies in computer-mediated communication. *Communication Research, 42,* 186-212. https://doi.org/10.1177/0093650212466257

Tuomchomtam, S., & Soonthornphisaj, N. (2019). Community recommendation for text post in social media: A case study on Reddit. *Intelligent Data Analysis*, *23*, 407-424. https://doi.org/10.3233/IDA-183861

Uchino, B. N. (2004). *Social support and physical health: Understanding the health consequences of relationships.* New Haven, CT: Yale University Press.

Uchino, B. N. (2009). What a lifespan approach might tell us about why distinct measures of social support have differential links to physical health. *Journal of Social and Personal Relationship, 26*, 53-62. https://doi.org/10.1177/0265407509105521

Ullman, S. E. (2000). Psychometric characteristics of the social reactions questionnaire: A measure of reactions to sexual assault victims. *Psychology of Women Quarterly*, *24*, 257-271. https://doi.org/10.1111/j.1471-6402.2000.tb00208.x

U.S. Department of Health and Human Services, National Institutes of Health, National Institute of Mental Health. (2019). Mental health information: Statistics. Retrieved from: https://www.nimh.nih.gov/health/statistics/mental-illness.shtml#part_154910

Velez, C. E., Krause, E. D., McKinnon, A., Brunwasser, S. M., Freres, D. M., Abenavoli, R. M., & Gillham, J. E. (2016). Social support seeking and early adolescent depression and anxiety symptoms: The moderating role of rumination. *Journal of Early Adolescence, 36,* p. 1118-1143. https://doi.org/10.1177/0272431615594460

Venetis, M. K., Chernichky-Karcher, S., Gettings, P. E. (2017). Disclosing mental illness information to a friend: Exploring how the disclosure decision-making model informs strategy selection. *Health Communication*, 33, 653-663. https://doi.org/10.1080/10410236.2017.1294231

Walling, B. M. (2020, May). *The impact of self-disclosure and social support-seeking strategies on confirming/disconfirming interpersonal responses to disclosure and social support: A content analysis of a depression help subReddit.* Paper presented at the 70th Annual Meeting of the International Communication Association, Gold Coast, Australia.

Walther, J. B. (1996). Computer-mediated communication: Impersonal, interpersonal, and hyperpersonal interaction. *Communication Research, 23,* 3-43. https://doi.org/10.1177/009365096023001001

Wang, N. (2019). Emerging adults' received and desired support from parents: Evidence for optimal received-desired support matching and optimal support surpluses. *Journal of Social and Personal Relationships, 36,* 3448-3470. https://doi.org/10.1177/0265407518822784

Wang, Y. C., Kraut, R. E., Levine, J. M. (2015). Eliciting and receiving online support: Using computer-aided content analysis to examine the dynamics of online social support. Journal of Medical Internet Research, 17. https://doi.org/10.2196/jmir.3558

Weber, P., Prochazka, F., & Schweiger, W. (2019). Why user comments affect the perceived quality of journalistic content: the role of judgement processes. *Journal of Media Psychology*, *31*, 24-34. https://doi.org/10.1027/1864-1105/a000217

Whitley, D. M., Kelley, S. J., & Lamis, D. A. (2016). Depression, social support, and mental health: A longitudinal mediation analysis in African American custodial grandmothers. *The International Journal of Aging and Human Development, 82,* 166-187. https://doi.org/10.1177/0091415015626550

Williams, S. L., & Mickelson, K. D. (2008). A paradox of support seeking and rejection among the stigmatized. *Personal Relationships, 15,* 493-509. https://doi.org/10.1111/j.1475-6811.2008.00212.x

Wright, K. B., & Bell, S. B. (2003). Health-related support groups on the internet: linking empirical findings to social support and computer-mediated communication theory. *Journal of Health Psychology*, 8, 39-54. https://doi.org/10.1177/1359105303008001429

Wright, K. B. (2000). Perceptions of on-line support providers: An examination of perceived homophily, source credibility, communication and social support within on-line support groups. *Communication Quarterly*, *48*, 44-59. https://doi.org/10.1080/01463370009385579

Xu, Y., & Burleson, B. R. (2001). Effects of sex, culture, and support type on perceptions of spousal social support: An assessment of the "support gap" hypothesis in early marriage. *Human Communication Research*, *27*, 535-566. https://doi.org/10.1111/j.1468-2958.2001.tb00792

Yip, J. W. C. (2019). Evaluating the communication of online social support: A mixed-methods analysis of structure and content. *Health Communication,* https://doi.org/10.1080/10410236.2019.1623643

Zhan, Y., Zhang, Z., Okamoto, J. M., Zeng, D. D., & Leischow, S. J. (2019). Underage JUUL use patterns: Content analysis of Reddit messages. Journal of Medical Internet Research, 21, 13038. https://doi.org/10.2196/13038

Zheng, Y., Xu, C., Li, Y., & Su, Y. (2018). Measuring and visualizing group knowledge elaboration in online collaborative discussions. *Journal of Educational Technology & Society*, *21*, 91-103.