HOW DO PEOPLE PURSUE MULTIPLE GOALS WHEN THEY COMMUNICATE EVERYDAY DISTRESS AND SEEK EMOTIONAL SUPPORT ON SOCIAL NETWORK SITES?

By

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PUBLIC ABSTRACT

HOW DO PEOPLE PURSUE MULTIPLE GOALS WHEN THEY COMMUNICATE EVERYDAY DISTRESS AND SEEK EMOTIONAL SUPPORT ON SOCIAL NETWORK SITES?

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The present study is designed to understand how people share everyday stress and seek emotional support on social network sites (SNS) such as Facebook. Although previous studies have shown that people receive support from their friends through social network sites, it remains unknown exactly how people share stressful events on social network sites to receive necessary comfort. To answer this question, this study looks at two different goals people pursue when they share stressful events on social network sites—receiving necessary support and maintaining a good impression—and examines how people produce support-seeking messages to accomplish those goals.

The present study conducted an experiment by assigning 176 college student participants to one of four experimental conditions: (1) sharing a moderately stressful event publicly by posting it on a Facebook status update; (2) sharing a mildly stressful event publicly by posting it on a Facebook status update; (3) sharing a moderately stressful event privately by sending a private message to a Facebook friend; and (4) sharing a mildly stressful event privately by sending a private message to a Facebook friend. Participants were then asked how important it was for them to receive necessary support and to maintain a good impression on others. This study also measured the amount of time participants spent writing a message and analyzed the actual message they produced during the experiment.

The result shows that the importance people place on receiving support increases with the severity of the stressful event. Maintaining a good impression becomes more important when people share the stressful story using the public status update as opposed to the private message. The amount of time people spend on writing a message increases when they share a stressful event that is more serious, and the extent of the increase is greater when people use the public status update as opposed to the private message to share the stressful story. Finally, the more time people spend on writing a message, the more likely they are to produce a message that reflects their need for comfort and impression management.

The findings from this study are meaningful, as they show how people share stressful events and seek emotional support on social network sites. They suggest that people want to maintain a good impression on others, and that this desire becomes greater when people share a stressful story publicly on social network sites. People's concerns about maintaining a good impression influence supportive communication and shape the quality of the emotional support exchanged on social network sites.

ABSTRACT

HOW DO PEOPLE PURSUE MULTIPLE GOALS WHEN THEY COMMUNICATE EVERYDAY DISTRESS AND SEEK EMOTIONAL SUPPORT ON SOCIAL NETWORK SITES?

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The present study investigates how people communicate everyday emotional distress and seek emotional support on social network sites. Although previous studies have shown that people receive necessary social support when they engage in online social networking, there is a lack of research on how people produce support-seeking messages to be shared on social network sites and how consideration of multiple goals shapes the composition of those messages. Employing the theoretical framework of multiple goals, this study investigates whether people pursue multiple goals when they seek emotional support on social network sites, and whether they compose support-seeking messages to address different goals simultaneously. It further examines whether the severity of the stressful situation and the expected publicity of the support-seeking message influence the amount of effort people put into message composition, and whether this degree of effort predicts the production of sophisticated messages that address multiple goals effectively.

The present study employed a two (problem severity: low vs. high) by two (publicity of message: public vs. private) between-subjects design. A laboratory experiment with 176 college student participants shows that people's communication goals change depending on the publicity of their message, and that people's levels of effort in message composition in computer-mediated communication (CMC) increase as the severity of the problem increases. Results also suggest that the effect of the problem's severity on CMC message composition time is moderated by the

publicity of the message, such that the effect of the problem severity on CMC message composition time is greater when people use a public SNS channel as opposed to a private SNS channel to communicate a stressful situation. Finally, the more effort people put into CMC message composition, the more likely they are to produce a sophisticated support-seeking message that serves multiple communication goals.

The finding from this study contributes to the theoretical advancement of social support and supportive communication in general, and provides new insights to the body of knowledge on how people utilize social network sites to seek emotional support. It suggests that support seekers can pursue and address multiple goals when they seek emotional support from others, and that the affordances of social network sites can amplify the impression management goal, which further contributes to the dynamics of supportive communication and shapes the quality of the emotional support exchanged on social network sites.

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CHAPTER 1

INTRODUCTION

Social network sites (SNS) are communication platforms where people can form and maintain a wide network of social connections (Ellison, Steinfield, & Lampe, 2011). Acquiring social support is one of the key reasons for visiting social network sites (Park, Kee, & Valenzuela, 2009). Social support helps people maintain psychological well-being directly or through alleviating distress caused by negative events (Cobb, 1976; Cohen & Hoberman, 1983; Cohen & Wills, 1985; House & Kahn, 1985). Studies have indicated that SNS users receive multiple types of support from their SNS friends (Hampton, Goulet, Rainie, & Purcell, 2011), with emotional support being the most common type (Oh, Lauckner, Boehmer, Fewins-Bliss, & Li, 2013).

Although existing SNS studies suggest that people emotionally benefit from having many SNS friends and engaging in various networking activities on social network sites, most of these studies focused on the receiver's perception of available social support or positive outcomes of having such perception (e.g., Lee, Noh, & Koo, 2013; Nabi, Prestin, & So, 2013; Wright, 2012; Wright et al., 2013). There has thus far not been a study examining how people compose the messages they post on social network sites. Moreover, previous studies have suggested that people manage their impression on social network sites by disclosing positive aspects of themselves (e.g., Qiu, Lin, Leung, & Tov, 2012; Zhao, Grasmuck, & Martin, 2008). However, it remains unknown how the general motivation of impression management on social network sites shapes ways people seek emotional support on social network sites, and how

features of computer-mediated communication (CMC) facilitate deliberate composition of the support-seeking messages.

A considerable body of literature on supportive communication has suggested characteristics of providers, seekers, and situations associated with accomplishing desirable support outcomes (e.g., Barbee, Gulley, & Cunningham, 1990; Burleson, 2003; Goldsmith, 2000, 2004; High & Dillard, 2012; Jones, 2004; MacGeorge, Gillihan, Samter, & Clark, 2003; MacGeorge, Lichtman, & Pressey, 2002; Mortenson, 2009). Most of these studies, however, viewed support seekers as passive recipients of supportive messages or ineffective communicators whose support-seeking attempts are often hindered by other situational factors. They seldom examined whether and how support seekers strategically address the need for support in order to accomplish their support-seeking goals effectively.

Since stressful situations vary in severity or other contextual facets (e.g., cause, duration etc.), support seekers are likely to have different goals and concerns, when they share stressful stories with others. Since humans constantly manage the impression they make on others in order to maintain an ideal self-image (Goffman, 1967; Leary & Kowalski, 1990; Rosenberg & Egbert, 2011; Turnley & Bolino, 2001), it is natural that people are concerned about the impression they are making, especially when they reveal their problems to others (Albrecht & Goldsmith, 2003; Brasher, Neidig, & Goldsmith, 2004). Moreover, because people desire to maintain a good impression when their behavior can be seen by a large audience (Leary & Kowalski, 1990), impression-oriented concerns would be more prominent when people seek support on social network sites, especially when they use public channels (e.g., wall posts or status updates) as opposed to private channels (e.g., private messages).

The multiple goal framework suggests that people pursue more than one goal during interpersonal communication and that each goal differs in its importance relative to other goals (Caughlin, 2010; Dillard, Segrin, & Harden, 1989; Meyer, 2002; Samp & Solomon, 1998; 1999; Wilson & Feng, 2007). Employing the theoretical framework of multiple goals, the present study explores whether people pursue multiple goals when they seek emotional support on social network sites and whether the consideration of multiple goals shapes their support-seeking messages. More specifically, this study tests whether the severity of the stressful situation motivates people to strongly pursue the support-receiving goal, and whether the expected publicity of the support-seeking message further motivates people to pursue the impression management goal in addition to the support-receiving goal. By using an asynchronous CMC channel that allows more time for message production and edits than do face-to-face or synchronous channels (Walther, 2007), this study also examines whether individuals put more time and effort into CMC message composition when they are motivated to pursue multiple goals as opposed to when they are not motivated to do so, and whether such effort leads to the production of sophisticated CMC messages that effectively address those goals.

The present study will contribute to the theoretical advancement of social support and supportive communication by providing a theory-grounded explanation of support-activating behavior on social network sites. Although existing studies on supportive communication have examined the quality of supportive messages and the characteristics of providers and situations associated with the quality of those messages, little is known about how people solicit support from others (Lim, Teo, & Zhao, 2013; Taylor et al., 2004). It is often considered natural that people will automatically seek support when they need it. An overlooked fact is that support seekers can also frame and communicate their problem differently to receive optimal support. By

examining how multiple goals shape the way people present stressful situations and seek support on social network sites, this study will contribute to a better understanding of how support seekers can influence the quality of supportive interaction.

Findings from the present study will also contribute to the body of knowledge on how people utilize social network sites to maintain psychological well-being. Although SNS researchers have advocated the benefits of online social networking in promoting psychological well-being, there have been few theoretical explanations of the unique nature of social network sites pertaining to sharing everyday stressors and exchanging social support. A majority of SNS studies on social support have associated the characteristics of social ties or relationships with perception of social support and psychological well-being. This simply reflects an untested assumption of sociological studies that "merely having these ties may have benefits" (Taylor et al., 2004, p. 355). Exploring how people represent stressful events on social network sites and examining how affordances of those sites highlight certain communication goals may help us better understand the unique opportunities and constraints of social network sites in delivering needed emotional support.

CHAPTER 2

LITERATURE REVIEW AND HYPOTHESES

Stress and Emotional Support

Daily Stress and Well-Being

Psychological stress is defined as "a reaction to the environment in which there is (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following the investment" (Hobfòll, 1989, p. 516). Reaction to stress involves "an alarming response, eliciting a general increase in wakefulness and brain arousal, and specific response to deal with the reasons for the alarm" (Ursin & Eriksen, 2004). Resources include objects, personal characteristics, conditions, or energies that have instrumental or symbolic value to the person or serve as means of obtaining those things (Hobfòll, 1989). People experience a mild level of stress regularly due to daily hassles, difficulties, or emotionally upsetting events (Brantley, Waggoner, Jones, & Rappaport, 1987; DeLongis, Folkman, & Lazarus, 1988; Nixon, Mazzola, Bauer, Krueger, & Spector, 2011). People sometimes experience severe stress because of major life events such as traumatic events or losses (Brewin, Andrew, & Valentine, 2000; Tracy, Norris, & Galea, 2011). The accumulation of stress can negatively affect physical health (Herbert & Cohen, 1993; Nixon et al., 2011; Segerstrom & Miller, 2004) as well as psychological well-being (Kraaij, Arensman, & Spinhoven, 2002).

The present study is conducted in the context of mild-to-moderate hassles, disappointments, or difficulties that people experience and become upset about on a regular basis. Daily stressful events are negative events that have a higher probability of occurring on a daily basis but have less significant impacts upon the individuals than negative major life events

do (Brantley et al., 1987; Flett, Blankstein, Hicken, & Watson, 1995). Daily stressors are "closer in temporal proximity to the onset, exacerbation, or recurrence of physical or psychological symptoms than major life events" (Brantley et al., 1987, p. 62). Previous research has shown that daily upsetting events are major determinants of mood and psychological well-being (Blankstein & Flett, 1992; DeLongis et al., 1988). Some studies further suggested that daily stressors are even stronger predictors of psychological symptoms than major life events (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982; Kanner, Coyne, Schaefer, & Lazarus, 1981). This is partly because daily hassles are less visible compared to major life events, and elicit less support from others unless people express their feelings and actively seek support (Flett et al., 1995). This further creates a paradox in support availability. For example, a study found that individuals suffering from mild mental problems tended to have fewer supporters and received less sympathy than those experiencing severer and more visible mental illnesses (Perry, 2011). Therefore, the support-seeking behavior and ways people represent the problematic situation would be critical for receiving necessary support, especially when people face daily upsetting events as they are not readily observable or clearly perceived by others as stressful.

Furthermore, previous studies have shown that supportive communication or the content of supportive messages matters only when support seekers can effectively process the message (Bodie, Burleson, & Holmstrom et al., 2011). Since having an extreme level of stress impairs the ability to process information and regulate thoughts (Arnsten, 2009; Shansky & Lipps, 2013), the communicative element (i.e., sensitivity, quality) would be more important when people experience mild-to-moderate levels of stress as opposed to an extreme level of stress (Bodie, Burleson, & Holmstrom et al., 2011). More discussion on the relationship between stress and

cognitive functioning, and its implication in the context of supportive communication is provided in discussion.

Emotional Support

The concept of social support has been widely studied among social psychologists due to its key role in alleviating the negative impact of stressful events on physical as well as psychological health (e.g., Cobb, 1976; Cohen & Hoberman, 1983; Cohen & Wills, 1985; Siedlecki, Salthouse, Oishi, & Jeswani, 2014; Thoits, 2011; See Holt-Lunstad, Smith, & Layton, 2010 for a recent meta-analysis). In general, social supports are resources exchanged between individuals with the purpose of helping each other (House & Kahn, 1985). Functionally, they can be classified based on the type of resources conveyed through supportive interaction (Cohen & Hoberman, 1983; Cutrona & Russell, 1990; House, 1981). For example, House (1981) identified four categories of support: informational support, emotional support, appraisal support, and instrumental support. Cutrona and Russell (1990) also proposed similar classification involving emotional support, social integration support, esteem support, tangible support, and information support. This taxonomy has been continuously applied in social support studies, including those conducted in online and SNS contexts (e.g., Donovan, LeFebvre, Tardif, Brown, & Love, 2014; Hirsch & Barton, 2011; Oh & Lee, 2012; Oh et al., 2013). Recently, Thoits (2011) suggested two overarching functional categories of social support: coping assistance and emotional sustenance. Coping assistance includes advice or instrumental aids that are problem-focused, whereas emotional sustenance provides caring, sympathy, and comfort for the purpose of reducing stress-induced negative affect.

The present study focuses on a specific stressful situation that requires emotional support. From the functional perspective, emotional support conveys, “comfort and security

during times of stress that lead a person to feel he or she is cared for by others" (Cutrona & Russell, 1990, p. 322). It is often treated as an intentional and goal-directed behavior "enacted by one party with the intent of helping another cope effectively with emotional distress" (Burleson, 2003, p. 552). Although different types of support can be more or less effective depending on the situation, emotional support has been generally perceived as helpful and appropriate across various situations (Burleson & Goldsmith, 1998; Cutrona & Suhr, 1992).

Acknowledging that the effectiveness of emotional support depends largely on whether the provider's supportive attempt is thoughtfully conveyed through supportive communication, many communication scholars have dedicated their research to understanding the mechanisms of supportive communication that conveys emotional support (e.g., Burleson, 2003; High & Dillard, 2012; Holmstrom, Burleson, & Jones, 2005; Jones, 2004). Following this line of literature, the current study also focuses on emotion-oriented communication from the perspective of support seekers and reveals how people communicate about stressful events to activate emotional support on social network sites. The next section summarizes previous studies on social support in the context of social network sites and discusses how SNS scholars have examined supportive communication occurring on these sites.

Computer-Mediated Social Support and Self-Disclosure on Social Network Sites

Computer-Mediated Social Support on Social Network Sites

Online communication technologies provide people with new opportunities for building relationships and receiving social support. Although earlier studies focused on how individuals' face-to-face support networks become weakened with their increased Internet use (e.g., Kraut et al., 1998), later studies have revealed positive aspects of online communication by showing how CMC users build online social networks and exchange support with each other (e.g., Amichai-Hamburger, Kingsbury, & Schneider, 2013; Eastin & LaRose, 2005; LaRose, Eastin, & Gregg, 2001; Turner, Grube, & Meyers, 2001; Walther & Boyd, 2002).

With the emergence of online platforms built for social networking, researchers have revealed how people utilize social network sites to exchange social support (e.g., Kim & Lee, 2011; Oh et al., 2013; Wright et al., 2013). Social network sites are communication platforms that offer various communication technologies for forming and maintaining "a wide network of social connections" (Ellison et al., 2011, pp. 875-876). A recent report showed that SNS users perceived a greater level of social support (including emotional, companionship, and tangible support) than did general Internet users (Hampton et al., 2011). The perception of social support on social network sites has been associated with positive psychological outcomes such as enhanced self-esteem, self-efficacy, and subjective well-being (Burke, Marlow, & Lento, 2010; Oh et al., 2013; Oh, Ozkaya, & LaRose, 2014; Phua, 2013; Steinfield, Ellison, & Lampe, 2008).

Another line of SNS research took a sociological approach to investigate social support. Social capital, which refers to the resources people acquire through social interactions (Putnam, 2000), has been a popular concept among many SNS researchers (Ellison, Gray, Vitak, Lampe, & Fiore, 2013; Ellison, Steinfield, & Lampe, 2007, Ellison et al., 2011; Jung, Gray, Lampe, &

Ellison, 2013; Park et al., 2009; Valenzuela, Park, & Kee, 2009; Vitak & Ellison, 2012; Vitak, Ellison, & Steinfield, 2011). Most of these studies followed Putnam's (2000) classification of bridging and bonding social capital. This classification partially reflects the functional dimensions of social support. Bridging social capital, which refers to the benefits of loosely connected interpersonal ties (i.e., acquiring novel information or new perspectives), captures information and network-related support. Bonding social capital, the resources exchanged between individuals in a close relationship (i.e., exchanging emotional support or tangible aids) captures the emotional and instrumental functions of social support. Typically, both types of social capital were studied as outcomes that were positively associated with individuals' online social networking activities (Ellison et al., 2011; Steinfield et al., 2008; Valenzuela et al., 2009).

Although these studies have reported various support-related benefits that social network sites offer, such as ease of widely distributing support-seeking messages or providing quick responses to friends who need support (Vitak & Ellison, 2012), only a few studies have examined how people actually solicit help on social network sites. A study that examined 20,000 Facebook status updates containing requests for action showed that, on average, status updates mobilizing resources contained more socially oriented words (i.e., words activating a specific member of one's network to provide help) than did non-mobilizing updates. In addition, the request status updates showed more emotional expressions and question marks than did the non-requesting status updates (Ellison et. al., 2013). When asking for a small favor on social network sites, offering incentives increased the likelihood of receiving responses from SNS friends (Jung et al., 2013). Revealing affiliations and combining multiple strategies (e.g., demonstrating gratitude and revealing incentives or affiliations at the same time) also increased the number of SNS friends who responded to the help-seeking message. These studies addressed the

characteristics of support-seeking messages prevalent on social network sites and discussed their effectiveness in acquiring desired responses. However, the support-seeking strategies found in these studies were more exploratory than theory-grounded; the strategies were not hypothesized from theories but rather drawn from post-hoc analyses of strategies reported by study respondents. Therefore, there is a need to develop a theory-driven framework to understand the support-seeking behavior on social network sites and predict features of the messages people post on those sites to activate emotional support from their SNS friends.

Self-Disclosure on Social Network Sites

Since one must disclose a problem or feeling to activate supportive communication, the self-disclosure literature is relevant to understanding the different motivations and processes underlying support-seeking behavior and the disclosure of personal matters. Self-disclosure refers to the communication about oneself including personal characteristics, opinions, feelings, and experiences (Chelune, 1975). Previous studies on self-disclosure on social network sites found that users tended to disclose personal information associated with socially desirable qualities such as popularity, social connectedness, or an out-going personality (e.g., Zhao et al., 2008). Studies have also shown that SNS users present positive events or feelings more frequently than negative ones (Bazarova, Taft, Choi, & Cosley, 2013; Qiu et al., 2012). The idea of selective self-presentation on CMC theoretically supports such disclosure patterns by claiming that people carefully select information about themselves to be shared online based on the goals that they would like to emphasize, and CMC technologies allow tactical presentation of self (Ellison, Heino, & Gibbs, 2006; Gibbs, Ellison, & Heino, 2006; Rosenberg & Egbert, 2011; Walther, 2007). On the other hand, another line of research has shown that people also disclose

negative feelings (Al-Saggaf & Nielsen, 2014; Lee et al., 2013; Moreno et al., 2011) and receive social support through honest self-disclosure (Kim & Lee, 2011).

Recently, Bazarova and Choi (2014) proposed an integrative view of self-disclosure on social network sites. This framework, known as the functional model of self-disclosure on social network sites, claims that SNS affordances amplify the importance of certain communication goals and further shape patterns of self-disclosure. SNS affordances can be defined as the intersection of SNS features and the utilities users derive from those features (Treem & Leonardi, 2012). For example, when sharing personal stories via public SNS channels such as wall postings or status updates, people tend to prioritize the impression management goal and disclose selectively edited versions of self. On the other hand, when using private SNS channels to interact with a specific communication partner, people are more likely engage in an intimate form of communication and willingly disclose private, sensitive information.

Although the functional model of self-disclosure on social network sites provides a general overview of self-disclosure on social network sites, it does not explain how the general motivation amplified by the communication context interacts with the support-oriented goal people pursue when they disclose stressful situations to solicit emotional support on social network sites. The present study seeks to address these questions by examining whether people pursue an impression management goal when they seek emotional support on social network sites, whether the communication context, especially the publicness of the support-seeking behavior, intensifies the importance of the impression management goal, and how the goal importance shapes the composition of the support-seeking CMC messages. The next section provides a synthesis of previous studies on supportive communication and discusses the theoretical implications of investigating support-seeking behavior on social network sites.

Support Providers, Support Seekers, and Supportive Communication

A considerable body of literature on supportive communication has suggested the characteristics of providers, seekers, and situations that are associated with accomplishing desirable support outcomes (e.g., Barbee et al., 1990; Burleson, 2003; Goldsmith, 2000, 2004; High & Dillard, 2012; Jones, 2004; MacGeorge et al., 2002, 2003; Mortenson, 2009). Most of these studies, however, focused on either understanding communication elements of effective comfort or exploring provider characteristics associated with the support-providing behavior. They seldom examined whether and how support seekers strategically address the need for support in order to accomplish their support-seeking goals effectively. This section summarizes the mainstream research on supportive communication and highlights the scarcity of academic attention to the support seeker and the support-seeking behavior.

Features of Effective Supportive Communication

Whereas studies of social support have involved a broad range of tangible and intangible resources, communication-oriented studies on social support have focused on the communication elements of supportive interactions that help the recipient feel better. Treating communication as the core element of social support, many communication scholars have devoted their research to understanding the features of effective support-conveying communication (e.g., Burleson, 2003; Burleson, Holmstrom, & Gilstrap, 2005; High & Dillard, 2012; Jones, 2004; Jones & Wirtz, 2006; Lehman, Ellard, & Wortman, 1986; Lemieux & Tighe, 2004; MacGeorge et al., 2002).

Studies on supportive communication were largely based on experiments in which participants rated the comforting messages either directly or indirectly across different stressful situations. For example, in Jones's (2004) experiment, participants disclosed their upsetting event to a confederate, reported their emotional state after the conversation with the confederate,

and evaluated the supportive attempt (i.e., helper's motivation, supportiveness, and expressiveness) after they received a comforting message from the confederate. In MacGeorge et al.'s (2002) experiment, participants read a hypothetical scenario about a person facing a stressful situation (i.e., having failed a midterm exam) and evaluated the quality of the different comforting messages (i.e., effectiveness, helpfulness, appropriateness, and sensitivity). In these experimental studies, person-centered messages, which explicitly acknowledge, elaborate, and grant legitimacy to thoughts and feelings of the distressed (Burleson & Goldsmith, 1998, p. 251) accomplished positive supportive outcomes, and were evaluated positively by the recipients or observers (see High & Dillard, 2012 for a meta-analysis). On the other hand, supportive communication was evaluated as unhelpful when the support provider criticized or invalidated the seeker's feelings (Burleson & Samter, 1985; Lehman et al., 1986), asserts how the seeker should feel (Goldsmith, 1994), focuses on the provider's own feelings (Lehman et al., 1986), and becomes overly involved in the problem (Dunkel-Schetter, Blasband, Feinstein, & Herbert, 1992). These unhelpful behaviors often failed to achieve positive support outcomes and negatively affected the relationship between the provider and the seeker (Burleson, 2003).

Support Providers

Along with the studies conducted to identify the key elements of effective support-providing communication, a large number of studies have explored various provider-oriented characteristics associated with support intentions and the quality of support. Although helping behaviors are often automatically triggered by prosocial impulses or unconscious action rules (e.g., picking up a pencil when someone drops it), they are also constrained by conflicting goals (Macrae & Johnston, 1998) or internal states (e.g., being exhausted) (Dewall, Baumeister, Gailliot, & Maner, 2008).

Communication-oriented studies on supportive behavior have treated comforting or support-providing communication as a goal-driven act (Kellermann, 1992). Following that assumption, studies have revealed different motivating factors associated with the provision of emotional support. One of the strongest motivating factors may be the perceived responsibility of the target (Dunkel-Schetter & Skokan, 1990; Jones & Burleson, 1997; Jung, 1988, also see Weiner, 2000). Previous studies found that perceived responsibility negatively influences intention to support the target and the quality of the comforting message (e.g., Jones & Burleson, 1997; Jung, 1988; MacGeorge, 2001; Otten, Panner, & Waugh, 1988). Providers also consider their own ability to provide effective support (MacGeorge et al., 2002). Feeling empathy (Burleson, 1983), being in a good mood (Cunningham, Shaffer, Barbee, Wolff, & Kelley, 1990; Egbert, 2003), and being familiar with the stressful event faced by the recipient (Egbert, 2003) were found to enhance the likelihood of providing effective support.

Support providers further differ in the level of skills or cognitive abilities needed for providing sophisticated support (Burleson, 2003; MacGeorge et al., 2003). Whereas motivations predict support behavior or supportive effort, skill variables are more closely related to the actual quality of the comforting message (Burleson, 2003). For example, in several experimental studies, the level of provider's cognitive complexity (i.e., the ability to differentiate between different constructs and deal with problems in abstract terms) positively influenced the provision of effective comforting messages (e.g., Burleson, 1983; Samter, 2002).

Support Seekers

While a wealth of studies were conducted to understand support-providing communication, only a few attempts were made to understand support seekers and their support-soliciting communication. Although support is more likely to be given to those who actively seek

it (Ballantine & Stephenson, 2011; Eastin & LaRose, 2005; Newman, Lauterbach, Munson, Resnick, & Morris, 2011; Wright et al., 2013), existing studies treated support seekers as either passive processors of supportive messages or ineffective communicators whose support-seeking attempts are often hindered by other concerns (e.g., impression management, relationship maintenance etc.).

The majority of existing studies on support seekers were outcome-oriented, in that they focused on the recipient's psychological outcome following the interaction or cognitive processing of the supportive message (Bodie, 2013; Bodie & Burleson, 2008; Burleson, 2009; Holmstrom et al., 2013; Jones &Wirtz, 2006). For example, the dual-process theory of supportive communication outcomes explains recipient outcomes of supportive interaction (Bodie & Burleson, 2008; Burleson, 2009). It posits that the effect of supportive communication is determined not only by features of the message but also by how the recipient cognitively processes the message. When recipients are motivated and have the ability to carefully process the provider's message, the effectiveness of the supportive attempts would be determined by the quality of the message itself (Bodie & Burleson, 2008; Burleson, 2009). When recipients are not motivated or are unable to process the message, their evaluation of the message would be influenced by other easy-to-process cues such as source characteristics (Burleson, 2009) or relational closeness between the provider and the recipient (Holmstrom et al., 2013).

A relatively small number of studies have investigated the motivations or concerns behind support-seeking behavior. Sensitive Interaction Systems Theory (SIST), developed by Barbee and her colleagues (Barbee et al., 1990, 1998; Barbee & Cunningham, 1995), is one of the few attempts that sought to theorize support-seeking behavior and determine situational factors associated with it. This theory delineates how emotional conflicts and ambivalence might

influence supportive interactions and outcomes. A part of this framework is oriented to support seekers; it explains how discrete emotions (i.e., sadness, hope, anxiety, anger, embarrassment, disgust) generate expectations about helpful support and determine support-seeking behaviors. For example, when experiencing an uncontrollable event (e.g., loss), a person may feel sad and try to seek solace from others through engaging in direct nonverbal support-activating behavior such as crying. When experiencing a negative event that is internally caused and not alterable, the person might feel embarrassed and try to escape from such a feeling by using an indirect and nonverbal support-activating strategy such as sighing or fidgeting (Barbee et al., 1998, p. 286).

Although several empirical studies seem to support this framework (e.g., Derlega, Winstead, Oldfield, & Barbee, 2003; Mortenson, 2009), this theory has been criticized by other scholars due to its lack of specification in describing each strategy and its weak theoretical explanations of the relationships suggested by the framework (e.g., Burleson, 2003; Goldsmith, 1994). Moreover, the framework involves nonverbal support-activating behaviors (i.e., cry, sigh) and presumes that those behaviors are also driven by strategic consideration, which in fact are largely automatic and uncontrollable. More fundamentally, this framework focuses on how event characteristics and emotions hinder support-seeking behavior, and therefore, it provides limited information on how support seekers can address situational constraints and effectively activate supportive responses from others when they are motivated to do so.

To address gaps in the existing support-seeking literature, the present study examines how individuals compose a support-seeking message, and whether the communicative context (i.e., social network sites) of seeking emotional support triggers certain communication goals and shapes the content of the support-seeking message. By viewing support seeking behavior as a specific form of communication, this study reveals the underlying motivations and goals of such

communication efforts and explores how support seekers endeavor to address multiple goals involved in the support-seeking situation on social network sites. The next section introduces the main theoretical framework utilized in this study to explain the presence and the role of communication goals in support-seeking behavior on social network sites.

Multiple Goals of Seeking Emotional Support on Social Network Sites

The present study employs a theoretical framework of multiple goals to explain how other concerns and motivations shape the messages people use to seek emotional support on social network sites. Support-seeking communication is a specific type of interpersonal communication that conveys multiple goals involving social support and impression management (Albrecht & Goldsmith, 2003). Support-seeking behavior is likely to be initiated by a desire to receive support, but the ways of accomplishing the support-receiving goal can be altered when people become motivated to serve other interpersonal goals.

Multiple Goal Framework

Communication goals are "desired end states for which individuals strive" during interaction (Berger, 2007, p. 50). Multiple goal perspectives stem from the premise that communication is inherently a goal-driven act (Berger, 2007; Caughlin, 2010; Dillard et al., 1989; Kellermann, 1992; O'Keefe, 1988; Wilson, 2007). Multiple goal frameworks also share the common idea that individuals tend to pursue multiple communication goals consciously or unconsciously during an interaction and that sometimes those goals conflict with and constrain each other (Caughlin, 2010).

Dillard's (1990) Goals-Planning-Action (GPA) model provides a goal-based explanation of interpersonal communication. This model distinguishes between primary goals and secondary goals. The primary goal is an influence goal guided by "the desire to bring about behavioral change in a target person" (p. 20). Secondary goals, which are objectives that "derive directly from more general motivations that are recurrent in a person's life" (p. 20), become temporarily salient by realizing the primary goal one attempts to achieve through communication. In short, primary goals motivate and initiate an interaction, and secondary goals shape features of the

message content (Dillard et al., 1989; Dillard, 1990). The primary goal is the dominant goal not in the sense that it is the most important goal that overwhelms other goals but rather because it defines and determines what the interaction is about (Caughlin, 2010; Dillard et al., 1989).

Dillard et al. (1989) identified six secondary goals that are commonly used in the goal literature: (a) identity goal, (b) interaction goal, (c) relational goal, (d) personal resource goal, and (e) arousal management goal (Dillard, 1990; Schrader & Dillard, 1998). Identity goals involve one's ethical and normative standards whereas interaction goals are oriented to impression management and social approval. Relational resource goals focus on relationship management whereas personal resource goals focus on acquiring tangible resources. Finally, arousal management goals focus on managing one's anxiety during the interaction.

The idea of multiple goals has been widely applied in the domain of interpersonal communication and social relationships (e.g., Caughlin, 2010; MacGeorge, 2001; Meyer, 2002, 2012; Samp & Solomon, 1998, 1999, 2005). Studies have identified how different secondary goals arise across various communicative situations (MacGeorge, 2001; Meyer, 2002; Samp, 2006) and further revealed how those goals influence communication behavior (Samp & Solomon, 1998; 1999; 2005). Samp and Solomon (2005), for example, found evidence that people pursue multiple relationship goals when communicating problematic events to their romantic partner. In their study, the relative importance and relationships among various goals influenced message embellishment, which is the message feature of pursuing certain goals through repeating or rephrasing goal-relevant themes or concepts (Samp & Solomon, 2005).

Politeness Theory also suggests appropriate facework across various communication situations to achieve secondary goals of protecting positive face (i.e., gaining social approval) and/or negative face (i.e., maintaining autonomy) of the communicators (Brown, 1987).

Empirical studies conducted within this framework revealed that communicators often pursue the secondary goals of mitigating anticipated threats to face and compose a message in a way that reduces such threats (Meyer, 2002; Wilson, Aleman, & Leatham, 1998). For example, Wilson et al. (1998) found that people concern about maintaining positive face for both parties when providing advice to their friends. When people pursue the face-mitigating secondary goal, they are more likely to provide reasons to justify their advice so that the friend voluntarily follows the advice without feeling face-threatened (Wilson et al., 1998).

The multiple goal framework would be particularly useful in understanding how people compose a CMC message to accomplish multiple goals. Although this framework is not immune from the criticism that communication often occurs automatically without deliberate planning or a conscious effort to accomplish goals (Caughlin, 2010), it can perhaps explain the role of motivations in computer-mediated communication on social network sites more accurately than it does for face-to-face communication. According to the functional model of self-disclosure on social network sites (Bazarova & Choi, 2014), affordances of SNS channels activate different communication goals, which then shape the content of the CMC message. For example, in a survey study of Facebook users, the affordance of status updates activated users' social validation goals (i.e., validation of self-concept and social approval) more strongly than did those of wall posts or private messages (Bazarova & Choi, 2014). Relationship development goals were more prominent in private messages and wall posts than they were in status updates. These goals further mediated the relationships between the SNS affordances and disclosure intimacy.

Although the present study is primarily based on the multiple goal framework, this study is expected to provide new insight to the functional model of self-disclosure on social network sites. The functional model of self-disclosure is informative, as it provides a broad overview of

how SNS affordances activate general communication goals (e.g., relationship development, social validation, information sharing) and further determine disclosure intimacy. But this framework has yet to provide a context-specific understanding of whether those general goals triggered by the SNS affordances shape or interact with the primary goal of communication that initiates the conversation on social network sites. Employing the concept of multiple goals, the present study examines how general (secondary) communication goals prompted by SNS affordances interact with the primary goal (i.e., receiving emotional support) and shape the content of support-seeking CMC messages. By doing so, this study would contribute to the advancement of the functional model of self-disclosure, particularly by enhancing its applicability in a specific communication context of seeking emotional support on social network sites. The next section integrates the multiple goal framework with research on social support to understand how the importance of the primary goal changes according to the nature of the stressful situation.

Primary Goal of Support-Seeking Communication

As described earlier, the present study examines whether and how people pursue multiple goals when they solicit emotional support on social network sites. This study proposes that when people desire emotional support from others, they will attempt to influence others' feelings and thoughts to provoke supportive responses. In this case, the support-receiving goal would be the primary goal that initiates and guides the communication effort.

Primary goals vary in their importance (Schrader & Dillard, 1998). In the context of seeking social support, the severity of the problematic situation would be the key factor motivating individuals to seek social support. In other words, as the level of stress increases, people would desire for emotional support from others. The existing support literature indirectly

supports this claim by showing a positive relationship between problem severity and support-seeking intention (Dunkel-Schetter, Folkman, & Lazarus, 1987; Flett et al., 1995; Spendelow & Jose, 2010; Wilcox & Birkel, 1983).

Findings relevant to the processing of supportive messages suggest that people become more upset and motivated to thoughtfully process supportive messages when they face moderately serious problems as opposed to mildly serious problems (e.g., Bodie, 2013; Bodie, Burleson, & Jones, 2012; Bodie, Burleson, Holmstrom, et al., 2011; Holmstrom et al., 2013). Although these studies focus on when people process comforting messages more or less carefully, the results indirectly inform us that problem severity influences motivation to mitigate negative feelings. Studies on negative emotions have also suggested that the more intense the emotion, the more motivated the person feeling it becomes to regulate it (e.g., Barrett, Gross, Christensen, & Benvenuto, 2001). However, as described earlier, an extreme level of stress caused by major life events would sometimes impede the cognitive functions needed for regulating negative emotions and stress (Arnsten, 2009; Shansky & Lipps, 2013). So focusing on problematic events that produce mild-to-moderate levels of stresses, Hypothesis 1 is proposed to test the relationship between severity of the problem (mild vs. moderate) and importance of the support-receiving goal.

> **Hypothesis 1:** When seeking support on a social network site, individuals will perceive the support-receiving goal as more important when they communicate about a stressful event that is moderately severe as opposed to one that is mildly severe.

Secondary Goal of Support-Seeking Communication on Social Network Sites

In addition to the nature of the problem, the present study proposes that the communicative context of seeking support would trigger other communication goals. According to the multiple goal framework, adoption of the primary goal causes consideration of secondary goals (Schrader & Dillard, 1998). Since support-seeking behavior is inherently face-threatening (Goldsmith, 1992), there is a risk that support seekers' positive self-image can be threatened through their support-activating attempt. Support seekers, however, would not always consciously be aware of or motivated to manage their impression when they seek support. Perceived importance of impression management would vary depending on the communicative context (Schrader & Dillard, 1998). The present study proposes that social network sites would provide a communication environment that prompts people with the impression management concern; in particular, expected publicity of the support-seeking message would motivate people to pursue the impression management goal.

Public vs. Private Communication on Social Network Sites

Social network sites provide various applications and functions that people can utilize to network with others. Burke, Kraut, and Marlow (2011) distinguished between three types of social activities that people engage in on social network sites: (1) directed communication, (2) broadcasting, and (3) passive consumption.

Directed communication includes activities oriented to an individual SNS friend that are more "personal and one-on-one" (p. 2). Directed communication occurs through emails, instant messages, private chatting, and other channels that allow person-directed communication. Directed communication often involves the rich content of supportiveness, positivity, and self-disclosure. Such intimate interaction contributes to the strength of the relationship. Directed

communication can occur through both public and private SNS channels, but the recipient often perceives personal disclosure as more intimate when it occurs through private SNS channels (Bazarova, 2012).

The second type of activity is "broadcasting," which targets a large audience. The broadcasting message is not directed at a particular person but highly visible to a large number of audience (Bazarova, 2012). The news feed application on Facebook, for example, provides features such as status updates, profiles, and photos that allow users to disclose and share their stories with an untargeted mass audience. Broadcasted messages are more likely to be shared through public SNS channels. Although the content shared through public channels is less intimate and in-depth, such open conversation also contributes to relationship building and maintenance (Burke et al., 2011).

The last type of activity is mere consumption of content provided by others without responding to it. This type of activity is similar to "lurking," which is also passive consumption of online content provided by other users (Kollock & Smith, 1996). Such activity occurs in response to the second type of activity (broadcasting). This type of SNS activity also contributes to relationship building indirectly through understanding and forming impressions about SNS friends.

Publicity of Support-Seeking Message and Pursuit of Impression Management Goal

Since support-seeking attempts are enacted with communication behaviors, they should be delivered through either directed/private messages or public postings. The functional model of self-disclosure in social network sites posits that communication applications on social network sites provide a complicated set of communication modalities involving different levels of directedness and visibility (i.e., publicity) (Bazarova & Choi, 2014). For example, as described

above, SNS users may use the status update function on Facebook for public communication (no directedness and high in visibility) or send a private message to their friend (highly directed and low in visibility).

As described earlier, self-disclosure through different SNS channels serves different motivations and goals as users construct different audiences in social network sites (Bazarova & Choi, 2014). More specifically, public self-disclosure directed at general others addresses the desire for self-validation, self-expression, and social approval. Private self-disclosure, on the other hand, is more often made to serve relationship-oriented goals. The multiple goal perspective also aligns with this idea as both argue that goals people pursue vary depending on the context of communication (Schrader & Dillard, 1998).

Early studies on help-seeking behavior suggested that the behavior's visibility could be an importance determinant in soliciting help (Shapiro, 1978; Williams & Williams, 1983). Although most of these studies were conducted in the context of instrumental help-seeking such as feedback or advice, they provided evidence that the publicity level of the help-seeking attempt influences whether and how a person solicits help from others. These studies argued that people worry about feeling embarrassment, humiliation, or public shame by making their personal problems public (Depaulo & Fisher, 1980; Williamson, 1974). Seeking help is more likely when it is done privately as opposed to publicly, and face-saving tend to inhibit help-seeking behavior (Tassler & Schwartz, 1972). In one study, the number of bystanders influenced help-seeking behavior; those surrounded by three people were more reluctant to seek help than those who were with just one other person (Williams & Williams, 1983).

A recent study outlining various benefits and costs of help-seeking behavior also emphasized threat to one's public image as an important inhibitor of support-seeking behavior

(Chan, 2013). Fear of public stigma (Eisenberg, Downs, Golberstein, & Zivin, 2009; Vogel, Wade, & Hackler, 2007) and threat to public images of competence (e.g. Newman & Goldin, 1990) were the major concerns that inhibited people from seeking help publicly. To avoid damaging their public image, some people chose to fail their tasks rather than solicit help (Chan, 2013). Although these studies were not conducted in the context of seeking emotional support or comfort, the findings indirectly suggest that people want to maintain a positive and competent public image, and this desire becomes greater as their behavior becomes more visible to a large audience.

Understanding the role of impression management is particularly important in studying support-seeking behavior on social network sites. Social network sites provide a unique communication environment where individuals can "broadcast" their story to a whole network of diverse friends, ranging from close friends to complete strangers (Gilbert & Karahalios, 2009). The earlier help-seeking studies were conducted either in a face-to-face context with homogeneous groups of strangers or acquaintances, or in CMC, which allows communicators to remain completely anonymous. These earlier studies might not fully inform the dynamics of different communication goals involving the diversity of audiences and the varying levels of visibility that influence support-seeking communication on social network sites.

Moreover, self-disclosure on social network sites does not follow the traditional principle of gradual self-disclosure (i.e., start by revealing casual information and incrementally move toward revealing central information) or disclosure intimacy (i.e., people share intimate information privately but not publicly). SNS users post personal and sometimes sensitive information on social network sites and make it viewable to a large audience (Bazarova & Choi, 2014). So the questions arise: Does public support-seeking communication to a large and diverse

audience group on social network sites amplify the goal of impression management? If so, how do people communicate to address the impression management goal involved in support-seeking behavior on social network sites?

As a first step toward answering these questions, the present study proposes that the visibility or the publicity of the CMC message on social network sites motivates individuals to pursue the impression management goal. Self-presentation researchers have posited that the publicity of one's behavior (i.e., the probability that one's behavior will be observed by others or the number of others who might learn about the behavior) is central to impression management (Leary & Kowalski, 1990, p. 38). Because SNS audiences are "no longer bounded by space and time" as well as being "invisible and ill-defined" (Bazarova, Taft, Choi, & Cosley, 2013, pp. 122-123), the publicity of the message would motivate individuals to pursue the impression management goal as audiences for the public modes (e.g., status updates and wall posts) can easily expand beyond intended targets (Bazarova & Choi, 2014; Bazarova et al., 2013).

In sum, although SNS users expect supportive response from their SNS friends when they disseminate a stressful story through a public channel on social network sites, they would also anticipate that a larger audience beyond their circle of friends could also see their support-seeking message. The more public one's behavior, the more likely one is to be concerned about how behavior appears to others, and the more motivated one will be to manage one's impression. Therefore, Hypothesis 2 is proposed as follows:

> **Hypothesis 2:** Individuals will perceive the impression management goal as more important when they communicate about a stressful event via a public SNS channel as opposed to a private SNS channel.

Production of Support-Seeking CMC Message on Social Network Sites

Production of Support-Seeking CMC Message

The present study proposes that CMC would allow individuals to construct a more sophisticated support-seeking CMC message when they are motivated to do so than when they are not. According to the hyperpersonal model of computer-mediated communication (Walther, 1996, 2007), CMC can lead to a more desirable interaction outcome than face-to-face communication. This is partly because people can spend more time on message production and editing, and they can focus solely on the message itself without managing other nonverbal communication elements (e.g., facial expression). The asynchronous CMC tools further encourage careful reflection of goals in the communication process as users are not forced by the situation to communicate immediately (Duthler, 2006; Walther, 2007). Although this framework was developed to explain interpersonal communication and relationship development on CMC, the underlying assumption is that CMC offers features that allow individuals to achieve communication goals more effectively.

These features, however, benefit users differently depending on users' motivation and interaction goals (Walther, 2007). In other words, people utilize CMC features to best serve their goals only when they are motivated to do so. For example, users of online dating sites utilize tools offered from the sites to present themselves in a more positive light. Their motivation for visiting those sites is to find a dating partner, and they try to accomplish this by making themselves look attractive (Ellison et al., 2006; Gibbs et al., 2006). Certain CMC features also help users effectively address their motivation. In one study, individuals' motivation to be polite was better reflected in the communication message when they used an asynchronous medium as opposed to a synchronous medium to send a request (Duthler, 2006). Social network sites also

provide a wide variety of communication tools (i.e., photos, wall posts, liking, commenting etc.) that allow individuals to disclose personal information and develop social relationships. The utilities of these features, however, depend on users' willingness to disclose on those sites (Trepte & Reinecke, 2013).

In a support-seeking context, the perceived importance of the support-seeking goal and the impression management goal would influence support seekers' motivation to manage those goals. Goal complexity, which is a function of the number of different goals that are temporarily dominant (Samp & Solomon, 2005; Schrader, 1999) will be greater when people pursue multiple goals as opposed to a single goal. By having a complex set of multiple goals in mind, people will become motivated to carefully tailor their message to their purpose (O'Keefe, 1988; Samp & Solomon, 2005; Schrader, 1999). With the unlimited time they can use to compose a message (Walther, 2007), individuals would put more effort into content selection and message production when they are motivated to address more than one goal in their message.

In sum, when people use a public SNS channel to seek emotional support, the severity of the problem will influence the amount of effort people put into the message as people will become motivated to pursue both the support-seeking and the impression management goals. They will spend more time to optimize their message for serving multiple goals effectively. In contrast, when using a private SNS channel to seek emotional support, people will exert less effort on composing a message than when they use a public SNS channel because people can select and control the audience of their support-seeking message. With the impression management concern being relatively low, people would only concern about receiving emotional support, and thus, not become motivated to address multiple goals. Reflecting such reasoning, Hypothesis 3 is proposed as follows:

Hypothesis 3: There is an interaction effect of the severity of the problem and the publicity of the message on CMC message composition time.

Hypothesis 3-1: When using a public SNS channel to communicate about a stressful event, individuals will spend more time on CMC message composition when the problem is moderately severe as opposed to mildly severe.

Hypothesis 3-2: When using a private SNS channel to communicate about a stressful event, CMC message composition time will not be influenced by the severity of the problem.

Sophistication of Support-Seeking CMC Message: Message Design Logic Approach

In the context of seeking emotional support, the present study explores whether affordances provided by social network sites amplify certain communication goals, and whether people successfully accomplish their communication goals by carefully constructing a support-seeking CMC message to be posted on social network sites. What remains to be tested is whether users' efforts to compose support-seeking CMC messages are conveyed in the actual messages. Do those who spend more time composing and editing their messages produce support-seeking messages that are more sophisticated and goal-reflective than those who spend relatively less time on message composition? This question is crucial, as examining the actual message is one of the unique contributions expected from the present study.

The present study employs the message design logic approach to analyze the support-seeking messages produced by individuals on social network sites. The message design logic framework is appropriate for the present study because its logical hierarchy is based on the communication goals a message serves to address. According to O'Keefe (1988), messages differ in their goal structure and design logic. Goal structure is determined by the number and

type of goals a person pursues when producing a message (Hullman, 2004; O'Keefe, 1988; Schrader & Dillard, 1998; Scott, Caughlin, Donovan-Kicken, & Mikucki-Enyat, 2013). Message design logic, then, refers to rules the message design a producer follows to accomplish goals (O'Keefe, 1988). O'Keefe (1988) identified three types of design logic people use to convey goals: expressive design logic, conventional design logic, and rhetorical design logic.

Expressive design logic is based on the premise that language is a medium for expressing thoughts and feelings (O'Keefe, 1988). So individuals using the expressive design logic view messages as simply conveying their thoughts or feelings without attending to or addressing contextual demands while they communicate. They are aware of the hearers but the hearers are assumed to receive and understand the message straightforwardly as communicated by the speaker. Expressive messages are, therefore, self-oriented and seldom addresses goals that are relevant in the situation (Hullman, 2004). In the present study, expressive messages would simply convey seekers' negative feelings (e.g., anger, sadness) or thoughts (e.g., complaints) without explaining their cause.

Conventional design logic uses a more sophisticated design of messages than does expressive design logic (O'Keefe, 1988). It is based on the premise that language achieves a certain social effect by following socially appropriate rules and procedures. Using this logic, individuals pursue a socially appropriate goal and select communication messages that coherently contribute to accomplishing their goal (O'Keefe, 1988). Although rules governing the accomplishment of communication goals might differ depending on the context of interaction, they share core functions such as exchanging good news, promoting relationships, sharing social support, and avoiding conflicts (Bryant & Marmo, 2012). Furthermore, the communicative context of social network sites highlights particular rules pertaining to facework and public

image, especially when people engage in public communication (Bryant & Marmo, 2012). Intimate disclosures, therefore, are often viewed as inappropriate in public as opposed to private communication (Bazarova, 2012). Since conventional messages are goal-driven, such messages emphasize the goals of the communicator and the techniques needed to achieve those goals (Hullman, 2004). In the present study, conventional messages would address one salient goal that would be either the support-receiving goal or the impression management goal.

Rhetorical design logic is the most sophisticated message design. This logic is based on the idea that communication creates and balances social selves and situations. Messages produced using rhetorical design logic are proactive (O'Keefe, 1988). Rhetorical messages redefine a situation to address multiple goals involved in the communication (O'Keefe, 1988). Rhetorical messages are typically longer and more complex, as this logic requires more deliberate communicative efforts (Hullman, 2004). In a support-seeking context, rhetorical messages would address multiple goals (i.e., support-receiving goal and impression management goal) and try to redefine the negative event in a positive light or focus on a lesson learned through the experience.

The framework of message design logic proposes that certain goals are conventionally understood to be salient in certain situations. Although messages following expressive or conventional logics are not inherently less valuable than those following the rhetorical logic, they are often evaluated by the partner or the third party as less effective or appropriate than the rhetorical logic (Hullman, 2004; Lambert & Gillespie, 1994; O'Keefe & McCornack, 1987; Scott et al., 2013).

The present study proposes that asynchronous and editable features of CMC would allow individuals to employ a sophisticated design logic addressing multiple goals when they are

motivated to do so. For example, when a person is highly motivated to pursue a support-seeking goal and an impression management goal, the person will put more time and effort into composing a message that serves both goals effectively. Although Walther (2007) found relationships between motivation and message composition efforts, few studies were conducted to examine whether these efforts are conveyed in the actual message. Following the message design logic framework, Hypothesis 4 proposes that the amount of effort individuals put into composing a support-seeking message is positively associated with the level of message sophistication. In other words, as individuals spend more time on message production and editing, their support-seeking message is more likely to include specific message elements that reflect the rhetorical design logic.

Hypothesis 4: Message composition time is positively associated with the level of sophistication in the support-seeking CMC message.

In sum, the present study aims to explore whether people pursue multiple goals when they solicit emotional support on social network sites, and whether consideration of multiple goals shapes the content of their support-seeking messages. More specifically, the study tests whether the severity of a stressful situation motivates people to pursue the goal of receiving support (H1), and whether the expected publicity of the support-seeking message further motivates people to pursue an impression management goal in addition to a support-receiving goal (H2). This study also examines whether individuals put more time and effort into CMC message composition when they are motivated to pursue multiple goals (H3), and whether such effort leads to the production of sophisticated CMC messages that respond to those goals (H4).

The body of existing knowledge about supportive communication has focused on understanding what constitutes desirable supportive communication and identifying provider

characteristics associated with producing effective support. Scarce attention has been given to understanding how people solicit emotional support to cope with a stressful situation and how impression-relevant concerns associated with sharing a stressful story shape their support-seeking message production. Moreover, although prior studies on social network sites have praised the beneficial outcomes of engaging in online social networking and emphasized social support as one of the key benefits online social networking provides, no studies have employed a communication-oriented theoretical framework to understand the mechanisms of the support-seeking CMC message production.

The present study would contribute to the theoretical advancement of social support and supportive communication by providing a theory-grounded explanation of support-activating behavior on social network sites. By examining how multiple goals shape the way people present stressful situations and seek emotional support on social network sites, this study will contribute to a better understanding of how support seekers can influence the quality of supportive interaction. Since no study has discussed how people share their problems and stressful situations on social network sites, findings from the present study will contribute to knowledge of how people utilize social network sites to maintain psychological well-being. Finally, exploring how people represent stressful events on social network sites and how affordances of social network sites shape and highlight certain communication goals may help us better understand the unique opportunities and constraints of social network sites in delivering needed support.

CHAPTER 3

METHOD

Participants

College students taking classes in the Communication department of a large Midwestern university were recruited for extra credit. College students account for the largest percentage of SNS users in the United States (Duggan & Smith, 2013) and thus are suitable subjects for this study. A total of 178 students (ages 18–29) were recruited to participate in a laboratory experiment for extra credit. Since there were no prior studies that could directly inform this study on its typical effect size, the number of subjects was estimated by a priori power analysis using G-Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) based on existing experimental studies conducted in similar contexts that showed medium-to-strong effect sizes (see High & Dillard, 2012, for meta-analysis). Participants were screened out if they did not have a Facebook account. Data from two participants were excluded as their emotional valence was extremely negative, resulting in a total sample size of 176. Among 176 participants, 121 (68.8%) were male and 55 (31.3%) were female. Their ages ranged from 18 to 28 with a mean age of 20.86 (SD = 1.45). No significant difference was observed among participants across the four conditions (Sex: χ^2 (3) = 2.15, p = .54; Age: F (3, 172) = .69, p = .56). Finally, the number of SNS friends ranged from 8 to 4,000 (M = 837.96, SD = 733.12). Since the number of SNS friends was not normally distributed (*Skewness* = 2.15, *Kurtosis* = 7.38), it was square-root transformed for further analyses (*transformed Mean* = 26.48, SD = 11.72, *Skewness* = .60, *Kurtosis* = .81). Appendix A provides probability-probability (p-p) plots of the raw and transformed data. Neither the original nor the transformed number of SNS friends differed across the four conditions *(*original number

of SNS friends: F (3, 172) = .82, p = .48; transformed number of SNS friends: F (3, 172) = .60, p = .62). The variances of the number of SNS friends were homogeneous across the four conditions as well (original number of SNS friends: F (3, 172) = .76, p = .52; transformed number of SNS friends: F (3, 172) = .41, p = .75). Table 1 summarizes the demographic characteristics of the participants across the experimental conditions.

Table 1. Participants' Demographic Characteristics and Number of Their SNS Friends

	Public Channel		Private Channel		
	Moderately Severe	Mildly Severe	Moderately Severe	Mildly Severe	Total
Total	45 (25.6%)	41 (23.3%)	44 (25.0%)	46 (26.1%)	176 (100%)
Gender[a]					
Male	28 (62.2%)	31 (75.6%)	29 (65.9%)	33 (71.1%)	121 (68.8%)
Female	17 (37.8%)	10 (24.4%)	15 (34.1%)	13 (28.3%)	55 (31.3%)
Age[b]	21.04 (1.78)	20.68 (1.21)	20.98 (1.50)	20.72 (1.22)	20.86 (1.45)
SNS friends[b]	982.78 (953.07)	764.27 (543.75)	781.39 (708.24)	816.09 (656.00)	837.96 (733.12)

Notes: a. Number of cases with percentages in the parentheses. b. Mean values with standard deviations in the parentheses.

Procedure

The present study employed a two (problem severity: moderate vs. mild) by two (publicity of message: public vs. private) between-subjects design. The experiment took place in a computer lab with a forced exposure manipulation. Once participating students arrived at the lab, they were instructed by a female experimenter who was blinded to the hypotheses. The participants were asked to sit in front of a computer and self-administer the experiment by following instructions that appeared on the computer screen. The involvement of the experimenter was minimized during the experiment. Following completion of an informed consent form, student participants were exposed to six randomly selected neutral images developed by Lang, Bradley, and Cuthbert (2008) to neutralize and soothe their mood and emotional state. The neutral images were pretested before they were used in the main study (see Appendix B for example images and Appendix B for the arousal scores measured in the pretest). Participants' emotions were measured using the Self-Assessment Manikin (SAM) scale, which is a picture-oriented instrument that directly assesses pleasure, arousal, and dominance in response to an object or event (Lang, 1980). Images in the SAM scale are scalable vector drawings, and emotions measured with this scale can be treated as continuous. This picture-based scale has been widely validated across different psychological studies (see Bradley & Lang, 1994 for its comparison with the multi-item emotion scale). The present study used two sets of SAM pictures to examine participants' emotional states associated with emotional valence and emotional arousal. No significant difference was observed across the four experimental conditions in terms of participants' emotional arousal (F (3, 170) = .18, p = .18). Emotional valence across the four groups showed a significant F-score (F (3, 172) = 2.89, $p < .05$), suggesting between-group differences in participants' emotional valence. Tukey's post-hoc analysis, however, did not show

a significant difference between individual groups at the 95% significance level. Thus, the neutralization treatment was successful in stabilizing participants' emotional state. See Appendix C for detailed SAM scores across the four conditions.

The present study employed a randomized block design embedded in the Qualtrics survey software.[1] After viewing the neutral images, participants were randomly assigned to read one upsetting scenario and asked to assume that they were involved in the situation. Two problematic scenarios were used, each of which was manipulated in two conditions to represent either a mildly stressful or a moderately stressful version of the situation. Participants were then asked to share a story about the event on Facebook, either by posting a status update about it or by sending a private message to one of their SNS friends. The present study used Facebook as a study platform due to its popularity among young American adults (Duggan & Smith, 2013). Participants then wrote an actual message that they would either post on their status update or send privately to one of their SNS friends in order to activate an emotional support. Participants also responded to questions examining (a) the importance of the support-receiving goal and (b) the importance of the impression management goal. These goal importance questions randomly appeared either before or after the message was composed to randomize the effect of the possibility that the questions would prompt participants to attend to these goals when composing their message. Participants then provided their demographic information, answered questions developed for manipulation checking, and were debriefed about the purpose of the study.

[1] http://www.qualtrics.com/

Stimuli

Two types of stimuli were used in the experiment: (a) relaxing images, to neutralize participants' emotional state before they underwent the main experimental process, and (b) written stressful scenarios, as manipulation of the problem severity variable.

This study used neutral photos from the International Affective Picture System (IAPS) inventory developed by Lang and colleagues (2008). IAPS has a large set of standardized emotion-provoking color photos developed to evoke a wide range of emotional categories. Fourteen neutral images were selected for a pretest. These images contained natural scenes consisting of green, blue, and yellow colors. Participants for the pretest were recruited by the same means as for the main study. In the pretest, participants (N = 48) viewed seven randomly selected images and reported their arousal level. Six semantic differential items with a 7-point scale were used to measure participants' arousal level (Bradley & Lang, 1994).[2] Two pictures (IAPS #5030, #7036) were excluded as their arousal scores were higher than the mid-point (IAPS#5030: M = 4.03, SD = .82; IAPS#7036: M = 4.43; SD = .83; see Appendix B for detailed scores.).

The scenario-based form of stimulus is widely used in empirical studies on supportive communication and is known to produce a strong effect (see High & Dillard, 2012, for meta-analysis). This study adopted 12 scenario samples representing mild-to-moderate problematic situations developed by Bodie and colleagues to be used in their studies on supportive communication (Bodie, Burleson, Gill-Rosier et al., 2011; Bodie, Burleson, Holmstrom, et al., 2011; Holmstrom et al., 2013). Bodie and colleagues originally created these scenarios to reflect

[2] Relaxed – stimulated; calm – excited; sluggish – frenzied; dull – jittery; sleepy – wide awake; unaroused – aroused. Cronbach's alpha reliability scores ranged from .76 to .89.

stressful situations that are commonly experienced by college students (e.g., getting a parking ticket, failing a quiz, losing a part-time job, relationship conflicts etc.) and are widely used in previous studies in the context of emotional support (Bodie, Burleson, Gill-Rosier et al., 2011). The present study pretested these scenarios in order to select one scenario pair that is (a) the most realistic and (b) accurately reflects differences in problem severity. College students recruited for pretesting the IAPS images were also asked evaluate six randomly chosen scenarios in terms of perceived realism and severity of the problem. Appendix D provides the results of the first pretest. Three scenario pairs (i.e., relationship issue, car trouble, scholarship loss) showed good realism scores and significant differences in their severity scores, and so they were pretested one more time using the perceived realism and severity tests, as well as the likelihood that people would seek emotional support through Facebook for each situation. Participants (N =31) were again recruited by the same means. This time, participants were instructed to read and evaluate three random scenarios. After reading each scenario, they were also asked to compose a support-seeking message that they would either post on their Facebook status update or send to their SNS friend using Facebook private message. This process was done to check if participants would successfully produce an actual support-seeking message in an imaginary support-seeking situation. The actual support-seeking messages produced by the participants were also used for the coder-training purpose. Appendix E provides the results of the second pretest. The scenario pair selected for the main study was the "car trouble" scenario, as it showed the highest scores for perceived realism (M = 5.66, SD = 1.32) and likelihood of seeking support (M = 3.03, SD = 1.87). The car trouble scenario pair also showed a significant difference between the two scenarios in terms of perceived severity of the situation (mildly severe scenario: M = 4.61, SD = 1.18; moderately severe scenario: M = 5.41, SD = 1.08; t (30) = -.3.55, $p < .01$). In this scenario

pair, both mildly and moderately severe conditions ask participants to imagine that they went to a party with their car left in a university garage, and failed to retrieve the car the next morning before the 7 a.m. ticketing time. The scenario outcome for the mild condition is a $25 parking ticket, whereas the outcome for the moderately severe condition involves the car being towed and a fine over $400. Appendix F shows the actual scenarios used in the main experiment.

Manipulation Check

After reading a scenario representing either a moderately or a mildly severe situation, participants evaluated the severity of the situation using a 7-point semantic differential scale. Participants also indicated their emotional states after they were exposed to the stressful scenarios. The severity question appeared at the end of the experiment to ensure that it would not contaminate the other results. The manipulation was successful: participants in the moderately severe condition perceived the severity of the situation portrayed in the scenario as significantly more serious than those in the the mildly severe condition (moderately severe condition: M = 5.52, SD = .94; mildly severe condition: M = 4.55, SD = 1.25, F (1, 171) = 34.46, $p < .001$). The publicity of the message (public vs. private) did not influence the perceived severity of the scenario (F (1, 171) = 1.45, p = .23), nor did the interaction of the scenario and the message publicity (F (1, 171) = 1.37, p = .24). As for participants' emotional states, pairwise t-tests revealed that the participants felt significantly less pleasant but more aroused after they read a stressful scenario regardless of its problem severity (emotional valence: *Mean Difference* = -3.97, SD = 1.70, t (172) = -30.79, $p < .001$; emotional arousal: *Mean Difference* = 3.16, SD = 2.55, t (173) = 16.33, $p < .001$). More specifically, participants who read the moderately severe scenario felt significantly less pleasant than those who read the mildly severe scenario (moderately severe scenario: M = 1.76, SD = .93; mildly severe scenario: M = 2.61, SD = 1.19,

F (1, 172) = 27.91, $p < .001$). In addition, those in the moderately severe condition were significantly more aroused than those in the mildly severe condition (moderately severe condition: $M = 7.63$, $SD = 1.68$; mildly severe condition: $M = 6.37$, $SD = 1.87$, F (1, 172) = 22.74, $p < .001$). Thus, manipulation was successful in upsetting participants and creating differential levels of emotional states in individuals between different groups while not confounding publicity. Appendix G provides the perceived severity scores as well as emotional states across the experimental conditions and the results of the ANOVA tests.

Order Effect

In the main experiment, the order of the goal importance questions and the message composition task was randomized to minimize the possibility that the goal importance questions influence participants' message composition behavior by prompting them with certain communication goals. In order to check this possibility, the effects of the task order on the two outcome variables (i.e., time spent on CMC message composition and level of message sophistication) were examined. As a result, the task order did not significantly influence either time spent on CMC message composition (with original time: t (174) = .16, $p = .88$; with log-transformed time: t (174) = .75, $p = .46$) or message sophistication (χ^2 (3) = 1.96, $p = .58$).

Measures

Items for Pretest and Manipulation Check

Perceived severity of the problem was measured in both the pretest and the main study. Four semantic items with a 7-point scale were used to measure perceived severity: not at all serious—very serious; not at all severe—very severe; not at all upsetting—very upsetting; and not at all stressful—very stressful. Cronbach's alpha values were .78 and .93 in the pretests, and .84 in the main experiment.

Perceived realism of the scenario was measured in the pretests in order to select the scenario pair that would be the most likely to happen in the participants' everyday lives. Three semantic items with a 7-point scale were used to measure perceived realism: not at all realistic—very realistic; not at all believable—very believable; and not at all likely to happen—very likely to happen. Cronbach's alpha scores were .67 and .95. These items were drawn from Holmstrom et al. (2013).

Likelihood of seeking support from SNS friends in response to the scenario was measured only in the second pretest. It was measured with the likelihood of (a) sharing negative feelings with, (b) seeking to lean on, and (c) seeking comfort from Facebook friends using a 7-point scale (Flett et al., 1995). Cronbach's alpha reliability scores ranged from .92 to .98.

Goal Importance

Measures of the importance of primary and secondary goals were adopted from Dillard et al. (1989), as their measures yielded reliable results in previous studies. Items were measured with a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The items measuring the importance of the primary goal yielded Cronbach's alpha values of .85 and .87 in the original study (Dillard et al., 1989). These items are general in nature, in order to encompass

various primary goals involved in different communication situations. Thus, they were modified to more specifically measure the importance of the support-receiving goal. For example, the item, "It was very important to me to convince this person to do what I wanted him or her to do," was modified to, "It is very important to me to convince my Facebook friends (this person) and activate supportive response after they (he or she) read (s) my posting."

Of the different secondary goals proposed by Dillard et al. (1989), the present study focused on the impression management goal, which Dillard labeled as the interaction goal, defined as the extent to which one desires to manage his or her impression and stay socially appropriate. Therefore, Dillard et al.'s five items measuring the importance of the interaction goal were used to measure the importance of the impression management goal. These items showed Cronbach's alpha values of .71 and .72 in the original study (Dillard et al., 1989). The items were also modified to fit this study context more specifically. An example item is, "I am concerned with putting myself in a "bad light" in this message."

Confirmatory factor analysis was conducted with AMOS 22.0 (IBM Corp., 2013) to validate the structure of the two multi-item variables. After fitting a CFA model, two items were deleted from the model due to their low factor loading scores (i.e., "I am very concerned about getting supportive response with this message" and "I am concerned with making (or maintaining) a good impression in this message."). After deleting these two items from the model, the CFA model showed a good fit (χ^2 (19) = 27.53, p = .09, GFI = .96, CFI = .99, TLI = .99, NFI = .97, RMSEA = .05, SRMR = .04). The reliability score was .86 for the importance of the support-receiving goal and .90 for the importance of the impression management goal. Factor loadings ranged from .69 to .87 for the importance of the support-receiving goal, and from .60 to .94 for the importance of the impression management goal. Composite scores of the two

variables were calculated by weighing each item by its unstandardized factor loading score.[3] The composite scores of the two variables were both normally distributed (*Skewness* = -.96, -.29, *Kurtosis* = .27, -1.25, respectively). The mean value of the importance of the support-receiving goal was 4.32, and its standard deviation was 1.21. The mean value of the importance of the impression management goal was 3.74 with the standard deviation of 1.56. Table 2 shows descriptives, reliabilities, and factor loading scores of the two multi-item variables.

[3] Importance of Support-Receiving Goal = Goal1 × (1/4.317) + Goal3 × (1.246/4.317) + Goal4 × (0.985/4.317) + Goal5 × (1.086/4.317); Importance of the Impression Management Goal = Goal7 × (1/3.591) + Goal8 × (1.015/3.591) + Goal9 × (0.959/3.591) + Goal10 × (0.617/3.591).

Table 2. Descriptive, Reliability, and Validity of Key Variables

	Mean (SD)	*Factor Loading*	*Alpha*
Importance of Support-Receiving Goal	4.32 (1.21)		
It is very important to me to convince my Facebook friends (this person) and activate supportive response after they (s/he) read (s) my posting.	4.33 (1.41)	.74	
I really care whether my Facebook friends (s/he) comfort (s) me.	4.35 (1.48)	.87	.86
The outcome of this message will have an important consequence for me.	4.17 (1.47)	.69	
I really want my Facebook friends (this person) to provide me with necessary support.	4.43 (1.38)	.82	
Importance of Impression Management Goal	3.74 (1.56)		
I will be careful to avoid saying things, which are socially inappropriate.	3.60 (1.81)	.89	
I will be very conscious of what is appropriate and inappropriate in this message.	3.77 (1.74)	.94	.90
I am concerned with putting myself in a "bad light" in this message.	3.55 (1.77)	.88	
I don't want to look stupid in this message.	4.19 (1.66)	.60	
Time spent on CMC Message Composition			
Original Time[a]	107.37 (56.48)		
Log-Transformed Time	1.97 (.23)		

Notes: N = 176. a. Originally measured in seconds.

Time Spent on Message Composition

The time spent on composing a support-seeking message was measured by recording the time participants stayed on the page where they were asked to compose a message to be either posted on their Facebook status update or shared through a private message. The survey tool provided by Qualtrics allows researchers to record the time participants stay on each web page. Table 2 provides means and standard deviations of the time scores across the four conditions. The time participants spent on composing the CMC message ranged from 21.01 to 311.43 seconds (M = 107.37, SD = 56.48). Normality of the distribution was checked, and the skewness value suggested a slight deviation of the data from the normal distribution (*Skewness* = 1.09, *Kurtosis* = 1.36). Log-transformation provided the best distribution of the data (*Skewness* = -.21, *Kurtosis* = -.30); for this reason, results from the original data are provided along with those using the log-transformed data. Appendix A provides p-p plots of the original and the transformed data.

Level of Message Sophistication

The level of message sophistication can be operationalized as the extent to which the message reflects a more sophisticated design logic. O'Keefe (1988) proposed a theoretically valid hierarchy of sophistication in the three design logics: a person must be able to express internal thoughts and feelings (expressive logic) before being able to communicate them in an appropriate manner (conventional logic), and a person must learn appropriate goals in a given situation before being able to address multiple goals by redefining the situation (rhetorical logic) (Scott et al., 2013). Later studies also confirmed that messages reflecting the rhetorical logic are the most effective compared to messages following the conventional logic or expressive logic (Hullman, 2004; Lambert & Gillespie, 1994; O'Keefe & McCornack, 1987; Scott et al., 2013).

Messages employing the expressive design logic serve no goal and are often evaluated as the least sophisticated.

The present study therefore rated messages following the rhetorical design logic as the most sophisticated, followed by messages reflecting the conventional design logic, and finally those following the expressive design logic. Coding was done using a holistic approach, by treating the entire message as one unit (O'Keefe & McCornack, 1987); this approach has been widely used in previous studies on message sophistication and has been shown to be reliable.[4] Two pre-trained coders coded each message as follows: no logic (0), expressive logic (1), conventional logic (2), and rhetorical logic (3). The variable was treated as ordinal, and so there was no assumption that the intervals between different levels of message logic were equal.

Although the message features defining each design logic differ across studies depending on the context of the study (Caughlin et al., 2008; Peterson & Albrecht, 1996; Scott et al., 2013), they share underlying themes, that expressive messages address no goal, that conventional messages address an immediate goal, and that rhetorical messages serve multiple goals. Since the present study used the message design logic approach to determine the level of message sophistication, the logic reflected in each message was coded by following the common rules used in previous studies. More specifically, a message was coded as "expressive" if it contained explicit expressions of negative emotions or thoughts without explaining the context or serving a goal. A message was coded as "conventional" if it served one immediate goal. A message pursuing a support-receiving goal would contain (a) a direct request for support, (b) an expression of the seeker's expectations or need for support, or (c) a statement seeking empathy

[4] Cohen's Kappa was .83 in the original study (O'Keefe, 1988). Later studies also showed good reliabilities: Cohen's Kappa of .90 and 1.00 in Peterson and Albrecht (1996); intra-class correlations of .80 in Scott et al. (2013) and .91 in Caughlin et al. (2008).

for the seeker's emotions or stressful situation. A message pursuing the impression management goal would contain (a) an explicit statement asking others not to evaluate the seeker negatively, or (b) an implicit effort at impression management by showing positive aspects about oneself, highlighting situational causes, or emphasizing the responsibility of others (Caughlin et al., 2008; Scott et al., 2013). A message was coded as "rhetorical" if it contained an attempt to pursue both support-receiving and impression management goals. Rhetorical messages further redefined or reframed the stressful situation, the seeker, and the communication context in a positive light or provided in-depth interpretation of the problem (Hullman, 2004; O'Keefe, 1988; Scott et al., 2013). Finally, a message that only contained simple facts about the scenario without any expression of thoughts or feelings was coded as having "no logic" and treated as the least sophisticated.

Two pre-trained coders, each of whom was blind to the research hypotheses, analyzed 176 messages composed by the research participants. A coding protocol was developed following the three-part approach (Riffe, Lacy, & Fico, 1998), which includes (a) the goals of the study and definitions of the concepts, (b) the specification of the content to be analyzed, and (c) the operational definitions of all the subcategories specifying how the coders assign values to each case, including the messages selected for checking inter-coder reliability. Appendix H provides the codebook, with a detailed coding protocol.

After an initial draft of the coding protocol was developed, the two coders underwent a series of training sessions. Following the training process proposed by Riffe et al. (1998), the two coders first spent time familiarizing themselves with the content. Next, the coders reviewed the coding protocol and discussed ambiguities in the instructions. After the familiarization and initial clarification process, the two coders independently coded 30 support-seeking message samples

based on the protocol. These sample messages were produced by the participants of the second pretest. The coding was done electronically on an Excel spreadsheet. In order to further systemize the coding process, the two coders first coded according to whether each posting contained a statement serving the impression management goal and/or the support-receiving goal. Each coder then highlighted the specific statements or passages reflecting those goals for later comparison. This process facilitated identification and clarification of dissensus between the two coders, especially about the goals reflected in the message, which was the key to message sophistication. The coding protocol was then revised based on the discussion of disagreements, ambiguities, and potential problems. Examples were added to the protocol to help the coders better understand the definition of each category. After the coding protocol was finalized, inter-coder reliabilities were checked using 62 randomly sampled messages (Lacy & Riffe, 1996).[5] The present study used Krippendorff's alpha (*KALPHA*) coefficient to establish inter-coder reliability, as this coefficient is particularly useful where the level of measurement of classification data is higher than nominal or ordinal (Krippendorff, 1980). Hayes' SPSS macro was used to compute the KALPHA estimate for the level of message sophistication (Hayes & Krippendorff, 2007). The reliability score of the message sophistication was .87.[6]

Among 176 support-seeking CMC messages, 9 (5.1%) messages were coded as conveying no logic, 37 (21.0%) messages as conveying the expressive logic, 97 (55.1%) messages as conveying the conventional logic and 33 (18.8%) messages as conveying the rhetorical logic. Table 3 provides the numbers and percentages of the messages in each category.

[5] The number of sample messages for reliability checking was calculated using the formula proposed by Lacy and Riffe (1996): $n = \{(N\text{-}1)(SE)^2 + PQN\}/\{(N\text{-}1)(SE)^2+PQ\}$ with the 5% confidence interval and 95% probability level. The minimal agreement level was 85% and the assumed probability level (PQ) was 90%.

[6] In order to systemize the main coding procedure, the two coders coded whether each posting contained a statement serving the impression management goal (*KALPHA* = .86) and/or the support-receiving goal (*KALPHA* = .82), prior to deciding the level of message sophistication.

Table 3. Content Analysis of Support-Seeking CMC Messages: Presence of Goal-Oriented Content, Level of Message Sophistication, and Inter-Coder Reliability

	Public Channel		Private Channel			
	Moderately Severe	Mildly Severe	Moderately Severe	Mildly Severe	Total	*KALPHA*
Presence of Support-Oriented Content						
Included	29 (64.4%)	5 (12.2%)	40 (90.9%)	26 (56.5%)	100 (56.8%)	.82
Not included	16 (35.6%)	36 (87.8%)	4 (9.1%)	20 (43.5%)	76 (43.2%)	
Presence of Impression-Oriented Content						
Included	28 (62.2%)	26 (63.4%)	4 (9.1%)	12 (26.1%)	106 (60.2%)	.86
Not included	17 (37.8%)	15 (36.6%)	40 (90.9%)	34 (73.9%)	70 (39.8%)	
Level of Message Sophistication						
No logic	2 (4.4%)	4 (9.8%)	1 (2.3%)	2 (4.3%)	9 (5.1%)	
Expressive	7 (15.6%)	12 (29.3%)	3 (6.8%)	15 (32.6%)	37 (21.0%)	.87
Conventional	15 (33.3%)	23 (56.1)	37 (84.1)	22 (47.8%)	97 (55.1%)	
Rhetorical	21 (46.7%)	2 (4.9%)	3 (6.8%)	7 (15.2%)	33 (18.8%)	
Total	45 (100%)	41 (100%)	44 (100%)	46 (100%)	176 (100%)	

Note: Values are number of cases with their percentages in the parentheses.

Analytic Strategy

SPSS 22 (IBM Corp., 2013) was utilized for data analysis. Hypotheses 1–2 were tested with two separate independent sample t-tests. In Hypothesis 1, the severity of the problem (mildly severe vs. moderately severe) was a nominal independent variable, and the importance of support-receiving goal was a continuous dependent variable. In Hypothesis 2, the publicity of the message (public vs. private) was a nominal independent variable, and the importance of the impression management goal was a continuous dependent variable. In the present study, Welch's formula of calculating t-values and degrees of freedom was utilized to account for group differences in variances and cell sizes (Welch, 1947).[7]

Hypothesis 3 was tested using a two-way between-subjects Analysis of Variance (ANOVA): the two manipulated factors, the problem severity and the publicity of the message, were categorical independent variables, while CMC message composition time was a continuous dependent variable. Levene's *F*-test was conducted prior to running each t-test and ANOVA to check the homogeneity assumption that the variance of the dependent variable should be equal across groups (Levene, 1960).

Finally, Hypothesis 4 was tested with an ordinal regression analysis involving CMC message composition time as an independent variable predicting the level of message sophistication, which was treated as an ordinal variable. Before examining the ordinal regression model, the proportional odds assumption was checked to ensure that CMC message composition time would have an identical effect at each level of sophistication (Brant, 1990). A one-tailed

[7] $Welch's\ t = \overline{X_1} - \overline{X_2} \,/\, \sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}$, $v \approx \left(\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}\right)^2 \,/\, \frac{s_1^4}{N_1^2 v_1} + \frac{s_2^4}{N_2^2 v_2}$

significance test at the .05 level was used to test the relationships predicted in Hypotheses 1–4 except for Hypothesis 3 and 3-2, as they were non-directional hypotheses.

CHAPTER 4

RESULTS

Effect of Problem Severity on Importance of Support-Receiving Goal

Hypothesis 1 predicted that when seeking support on a social networking site, individuals would perceive the support-receiving goal as more important when they were communicating about a stressful event that is moderately severe, as opposed to one that is mildly severe. An independent sample t-test was conducted to test the effect of the severity of the problem on the perceived importance of the support-receiving goal. Levene's *F*-test indicated a possibility that the variances of the two groups were slightly different (F (1, 174) = 3.83, p = .05). With unequal sample sizes and a possibility of unequal variances of the two groups, Welch's unpaired t-test was performed as this formula of defining t-value accounts for inequality of the two groups in their variances and sample sizes (Welch, 1947). As shown in Table 4, Hypothesis 1 is not supported. At the .05 significance level, there was no significant group difference in the perceived importance of the support-receiving goal (t (163) = 1.37, p = .09, one-tailed). Although participants facing a moderately severe problem perceived greater importance of the support-receiving goal than did those facing a mildly severe problem, as predicted, that difference was not statistically significant at the .05 significance level.

Table 4. Means and Standard Deviations of Perceived Importance of Support-Receiving Goal between Individuals Facing Moderately vs. Mildly Severe Problems

	N	*Mean* (*SD*)[a]	*t-value* (163) [b]
Total	176	4.32 (1.21)	
Moderately Severe	89	4.45 (1.06)	1.37
Mildly Severe	87	4.20 (1.34)	

Notes: a. Values are mean and standard deviations of the perceived importance of the support-receiving goal. b. Welch's *t*-value. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$, one-tailed.

Effect of Message Publicity on Importance of Impression Management Goal

Hypothesis 2 was proposed to test whether individuals would perceive the impression management goal as more important when they solicit emotional support through a public SNS channel as opposed to a private SNS channel. Since Levene's *F*-test suggested a possibility of slight violation of the homogeneity assumption (F (1, 174) = 3.76, p = .05), a Welch's unpaired t-test was again conducted to test the effect of message publicity on the importance of the impression management goal (Welch, 1947).

As shown in Table 5, Hypothesis 2 is supported. There was a significant difference in the perceived importance of the support-receiving goal between individuals in the public sharing condition and the private-sharing condition, such that people perceived the impression management goal as more important when they were sharing the negative story using the public as opposed to the private SNS channel (public: M = 4.50, SD = 1.27; private: M = 3.01; SD = 1.47; t (172) = 7.21, p < .001, one-tailed).

Table 5. Means and Standard Deviations of Perceived Importance of Impression Management Goal between Individuals Seeking Emotional Support through Public vs. Private SNS Channels

	N	*Mean* (*SD*)[a]	*t-value* (172)
Total	176	3.74 (1.56)	
Public Channel	86	4.50 (1.27)	7.21***
Private Channel	90	3.01 (1.47)	

Notes: a. Values are means and standard deviations of the perceived importance of the support-receiving goal. b. Welch's *t*-value. *p < .05, **p < .01, ***p < .001, one-tailed.

Effect of Problem Severity and Message Publicity on Message Composition Time

Hypothesis 3 predicted an interaction effect of the severity of the problem and the publicity of the message on support-seeking CMC message composition time. More specifically, it predicted that when using a public SNS channel to communicate a stressful event, individuals would spend more time on CMC message composition when the problem is moderately severe as opposed to mildly severe (H3-1). It was also predicted that when using a private SNS channel to communicate a stressful event, CMC message composition time would not be influenced by the severity of the problem (H3-2). A two-way ANOVA was conducted to test the interaction effect of the problem severity and message publicity on CMC message composition time. The results of using the original time and the log-transformed time spent on CMC message composition are both presented in this section, as the original data showed a slight deviation from the normal distribution. Levene's *F*-test suggested no significant difference in variances of the four groups (original time: F (3, 172) = .81, p = .50; log-transformed time: F (3, 172) = .90, p = .44). Because of the unequal cell sizes, Type III sums of squares were used to calculate the *F*-values in the two-way ANOVA (Keppel & Wickens, 2004). Since this inequality occurred randomly rather than intentionally, the result was very unlikely to be biased by the differences in the sample sizes of the four groups.

As shown in Table 6, there was a significant interaction between the problem severity and the message publicity in both the original and the transformed data (with original time: F (1, 172) = 4.31, p <. 05, partial η^2 = .02; with log-transformed time: F (1, 172) = 4.99, p < .05, partial η^2 = .03). When using a public SNS channel to communicate about a stressful event, participants spent significantly more time on CMC message composition when the problem was moderately severe (M = 142.45, SD = 59.77) as opposed to mildly severe (M = 89.27, SD =

51.89). A pairwise comparison was made with a Bonferroni adjustment for multiple comparisons, and the result suggested the significance of such difference ($p < .001$ for both the original and the log-transformed time). Thus, Hypothesis 3-1 is supported.

When using a private SNS channel to communicate a stressful event, participants spent more time on CMC message composition when the problem was moderately severe (M =108.48, SD = 52.67) as opposed to mildly severe (M = 88.12, SD = 44.24). However, a pairwise comparison with a Bonferroni p-value adjustment suggested a non-significant difference between the two groups (with original time: $p = .10$; with log-transformed time: $p = .14$). Thus, Hypothesis 3-2 was supported. Figure 1 shows the pattern of interaction.

Table 6. Main and Interaction Effects of Problem Severity and Message Publicity on Time Spent on CMC Message Composition

		Original Time Spent on CMC Message Composition			Log-Transformed Time Spent on CMC Message Composition		
	df	*MS*	*F*	*Partial* η^2	*MS*	*F*	*Partial* η^2
Problem Severity	1	59376.43	21.63***	.11	1.05	22.65***	.12
Message Publicity	1	13544.43	4.93*	.03	.15	3.21	.02
Problem Severity × Message Publicity	1	11820.84	4.31*	.02	.23	4.99*	.03
Error	172	2745.67			.05		

*$p < .05$, **$p < .01$, ***$p < .001$, two-tailed.

Table 7. Means and Standard Deviations of Time Spent on CMC Message Composition across Four Experimental Conditions

Message Publicity	Problem Severity	*n*	*Mean (SD)*[a]
Public	Total	86	117.10 (61.89)
	Moderately Severe	45	142.45 (59.77)
	Mildly Severe	41	89.27 (51.89)
Private	Total	90	98.07 (49.34)
	Moderately Severe	44	108.48 (52.67)
	Mildly Severe	46	88.12 (44.24)
Total	Total	176	107.37 (56.48)
	Moderately Severe	89	126.66 (58.60)
	Mildly Severe	87	88.66 (47.71)

Note: a. Values are means and standard deviations for the time spent on message composition.

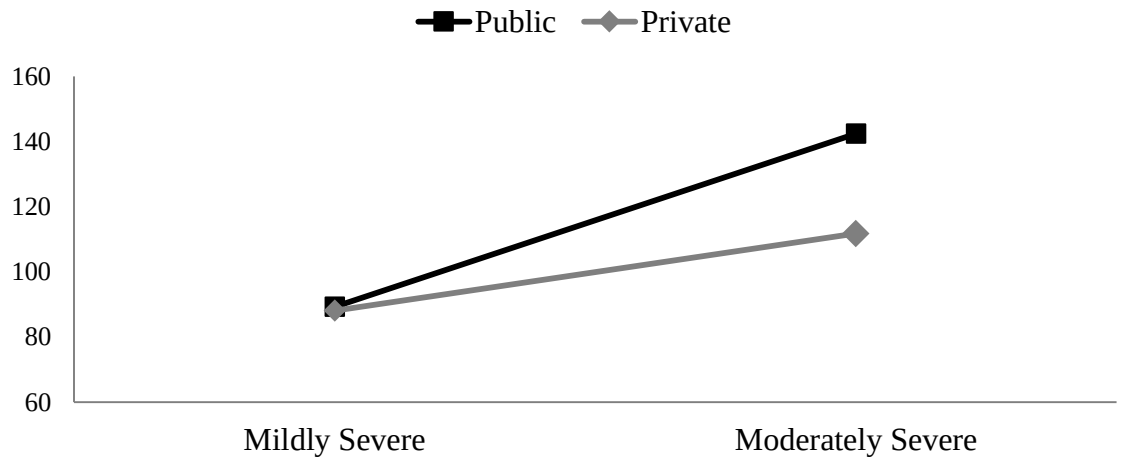

Figure 1. Main and Interaction Effects of Problem Severity and Message Publicity on Time Spent on CMC Message Composition[8]

[8] The Y-axis is time spent on CMC message composition in seconds whereas the X-axis is perceived severity of the problem. The separate lines are publicity of the support-seeking CMC message.

Effect of Message Composition Time on Sophistication of Support-Seeking CMC Message

Hypothesis 4 proposed a positive relationship between message composition time and the level of sophistication in the support-seeking CMC message. Table 8 shows correlation coefficients among the key variables including the time spent on CMC message composition and the level of sophistication in the support-seeking message. An ordinal regression model was estimated to test the relationship between CMC message composition time and the level of message sophistication. The proportional odds assumption was not violated (Brant, 1990), as the slope coefficient was not significantly different across levels of sophistication (with original time: χ^2 (2) = .34, p = .56; with log-transformed time: χ^2 (2) = .69, p = .71).

The result of the ordinal regression analysis is shown in Table 9, which indicates a significant relationship between CMC message composition time and the level of sophistication in the message. More specifically, with a one-second increase in CMC message composition time, there would be a .02 increase in the ordered log odds of the message having a higher level of sophistication (with original time: OR = 1.02, $p < .001$, McFadden's Pseudo r^2 = .10; with log-transformed time: OR = 107.07, $p < .001$, McFadden's Pseudo r^2 = .12). Hypothesis 4, therefore, is supported.

Table 8. Correlations among Key Variables

	1	2	3	4	5
Spearman's Nonparametric Correlations					
1. SS Goal	1.00				
2. IM Goal	-.01	1.00			
3. Time	.11	.17*	1.00		
4. Log-transformed Time	.11	.17*	1.00	1.00	
5. Sophistication	.11	.05	.46***	.46***	1.00
Pearson's Zero-Order Correlations					
1. SS Goal	1.00				
2. IM Goal	.03	1.00			
3. Time	.15*	.19*	1.00		
4. Log-transformed Time	.20**	.20**	.95***	1.00	
5. Sophistication	.13*	.05	.42***	.47***	1.00

Notes: Listwise deleted, $N = 176$. 1. Importance of Support-Receiving Goal; 2. Importance of Impression Management Goal; 3. Time Spent on CMC Message Composition; 4. Log-Transformed Time spent on CMC Message Composition; 5. Level of Message Sophistication. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$, one-tailed.

Table 9. Ordinal Regression Analyses Examining Effect of Time Spent on CMC Message Composition on Sophistication of Support-Seeking CMC Message

Predictors	*B*	*S.E.*	Wald χ^2	*df*	*OR* [95% CI]
Time	.02	.003	31.37	1	1.02 [1.01, 1.02]***
Log-Transformed Time	4.67	.74	40.46	1	107.07 [25.37, 451.91]***

Notes: Effects of the original and the log-transformed time are estimated using separate ordinal regression models. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$, one-tailed.

CHAPTER 5

DISCUSSION

The present study investigates whether people pursue multiple goals when they seek emotional support on social network sites, and whether multiple goal considerations shape their support-seeking messages. More specifically, the study tests whether the severity of a stressful situation motivates people to more strongly pursue the goal of receiving support, and whether the expected publicity of the support-seeking message further motivates people to pursue the impression management goal in addition to the support-receiving goal. This study also examines whether individuals put more time and effort into CMC message composition when they are motivated to pursue multiple goals, and whether such effort leads to the production of sophisticated CMC messages that respond to those goals.

Importance of Support-Receiving and Impression Management Goals

The first hypothesis predicted that people would more strongly pursue the goal of receiving emotional support when they were confronting a moderately stressful situation as opposed to a mildly stressful situation. The result of this study, however, failed to support this prediction. Although participants in the moderately severe condition evaluated the scenario as significantly more severe than did those in the mildly severe condition, participants' perceptions on the importance of the support-receiving goal did not differ between those in the moderately stressful condition and the mildly stressful condition. This result seems to suggest that confronting a more severe problem does not necessarily create a stronger motivation to solicit emotional support. However, before concluding a non-significant relationship between the

severity of the problem and the importance of the support-receiving goal, an alternative explanation needs further exploration.

First, there is a possibility that participants' psychological reactions were somehow different within the same stressful condition. People have different thresholds in their stress resistance, as well as in their capabilities to cope with psychological difficulties (Vodenicharov, Dyakova, & Shipkovenska, 2005). As the result of Levene's *F*-test suggested, the variability of the importance of the support-seeking goal was larger in the mildly severe condition than in the moderately severe condition. This result suggests that for some individuals, getting a $25 ticket was a very stressful situation that required emotional support whereas others did not feel stressed by such an event. A significant and positive relationship between perceived severity and the importance of the support-receiving goal ($r = .28$, $p < .001$) indirectly supports this explanation. Since previous studies have consistently shown a significant relationship between problem severity and motivation to seek or process emotional support (e.g., Bodie, 2013; Bodie et al., 2011, 2012; Dunkel-Schetter et al., 1987; Flett et al., 1995; Holmstrom et al., 2013; Spendelow & Jose, 2010; Wilcox & Birkel, 1983), future studies should measure and account for individual differences in stress thresholds in a variety of stressful situations.

Given the non-significant relationship between problem severity and the importance of the support-receiving goal, a post-hoc analysis was conducted to test another possible explanation that the communication context (i.e., message publicity) had an impact on people's primary goal perceptions. The result showed that participants pursued the support-receiving goal more strongly when they were asked to seek emotional support using a private SNS channel ($M = 4.77$, $SD = .83$) as opposed to a public SNS channel ($M = 3.85$, $SD = 1.36$), $t(174) = 5.45$, $p < .001$.

The present study deliberately assigned participants to either the public or the private sharing condition. Thus, being consciously aware of the audience of the support-seeking message could have shaped the importance of the primary goal for participants. Since this study did not provide participants with an opportunity to select the channel that they would use to share their stressful story, it is possible that participants' communication goals were already determined based on the channel and audience assigned to their conditions. Previous studies on communication channel selection have suggested that channel preferences change as people pursue different communication goals (Feaster, 2010; O'Sullivan, 2000). The functional disclosure framework also posits that people pursue different strategies when they self-disclose on social network sites depending on media affordances (Bazarova & Choi, 2014). In the present study, participants' perceptions of the media affordances of private messages on Facebook, such as intimate and personal communication, could have shaped their communication goals.

Future studies should consider testing if the severity of the problem or other features of a stressful situation influence people's selection of a particular SNS channel or preference for a specific media affordance to share negative stories with others. Future studies might also consider assigning people into multiple communication contexts and examine how support-related perceptions and communication goals change across different communication channels and audiences.

Following the theoretical framework of multiple goals (Schrader & Dillard, 1998), the functional model of self-disclosure (Bazarova & Choi, 2014), and the idea that support-seeking behavior is inherently face-threatening (Goldsmith, 1992), the present study predicted that the communicative context would activate a particular secondary communicative goal; that is, the expected publicity of a support-seeking message would prompt people with an impression

management concern and make them behave in accordance with the impression management goal. The result supported this prediction. Participants pursued the impression management goal more strongly when they shared a stressful story with their SNS friends using the public SNS channel (i.e., Facebook status update) as opposed to the private SNS channel (i.e., Facebook private message).

Previous studies on self-disclosure and communication goals suggest that the publicity of the CMC message motivates users to pursue an impression management goal (Leary & Kowalski, 1990) and such motivation also exists when people "broadcast" personal information on social network sites (Bazarova et al., 2013; Bazarova & Choi, 2014). The findings of the present study supports this idea, as participants in this study perceived the impression management goal as more important when they expected greater publicity for their support-seeking message.

The present study was conducted in a communication context that can be considered either public or private. However, certain other communication tools exist along the continuum of the two extremes. For example, Facebook Groups allow users to form groups and post content that can only be shared among group members (Facebook, 2014). By posting a supportive message on selected Facebook Groups, SNS users can share a stressful situation with a larger number of people than they could manage with private messages, while having a greater control over the audience than they would have with status updates. Moreover, SNS channels are different not only in their visibility but also in their directedness (Bazarova & Choi, 2014). For example, every Facebook user owns a wall, and friends can post public messages that are directed to the owner of the wall. Although communication on Facebook walls and status updates are both public and visible to a large audience, they might serve to address different

goals due to their differences in directedness. Future studies would benefit from examining goals of supportive communication on different SNS channels that contain a wide variety of characteristics (e.g., visibility, directedness etc.) and exploring how affordances of other SNS channels prompt users with other communication goals when seeking emotional support through those channels.

Pursuit of Multiple Goals and Production of Support-Seeking CMC Message

The present study further examined whether the pursuit of multiple goals influences people's message production behavior. The hyperpersonal model of CMC suggests that CMC can lead to more desirable interaction outcomes than face-to-face communication, partly due to the asynchronous nature of CMC tools, which encourage careful reflection of goals during the communication process (Duthler, 2006; Walther, 2007). When people are motivated to pursue a certain goal through computer-mediated communication, they are more likely to utilize CMC features to accomplish it (Duthler, 2006; Ellison et al., 2006; Gibbs et al., 2006). In the present study, people spent more time on developing a support-seeking CMC message when they were sharing a stressful story that was moderately severe as opposed to mildly severe. The difference was dependent on the expected publicity of the message, such that the difference in the time people spent on composing a support-seeking message was much greater when they used a public SNS channel as opposed to a private SNS channel. This finding paralleled those in previous research that highlighted the role of motivation in computer-mediated communication, in the sense that people put more effort into CMC message composition when they are motivated to accomplish certain goals (Walther, 2007) such as looking attractive (Ellison et al., 2006; Gibbs et al., 2006) or being polite (Duthler, 2006).

Moreover, this finding seems to support the idea of goal complexity (O'Keefe, 1988; Samp & Solomon, 2005; Schrader, 1999), which suggests that pursuing multiple goals increases complexity of goal structures, and individuals may embellish their messages to address multiple goals simultaneously. When the problem they encounter is serious and when the publicity of the message is high, people are more likely to develop a complex set of goal structures, and become further motivated to carefully tailor their messages to these purposes. In the present study, participants who shared a moderately severe problem using a public SNS channel spent a longer time on developing a support-seeking CMC message, whereas those sharing a mild problem through a private SNS channel spent less time on the task.

However, it is unclear whether such a result is directly attributable to the pursuit of multiple goals, because the importance of the support-receiving goal was not significantly greater when people were confronting the moderately severe problem as opposed to the mildly severe problem. If the composition time discrepancy is not directly due to goal complexity, what other factors would explain such discrepancy? One possible explanation might be that participants not only developed perceptions of the importance of certain goals, but also developed expectations on how likely or how easily they could achieve those goals. Goals do not automatically motivate behaviors (Bandura, 2001); instead, people engage in an evaluative self-engagement process that is influenced by different goal characteristics, as well as judgments on their own capabilities of engaging in goal-directed behaviors (Bandura, 1986, 2001). In communication research, the concept of goal challenge—a judgment on how challenging the goal one wants to accomplish is (Samp & Solomon, 2005)—has also been found to influence people's communication behavior. This influence appears in addition to that of goal complexity,

such that people facing a greater goal challenge tend to expend more efforts on communication, reflected by using more clauses and repetitions of information (Samp & Solomon, 1999, 2005).

In the present study, participants evaluated receiving emotional support as more important when they were sharing a negative story privately with one of their SNS friends than when they were posting their story using a public channel that addresses a larger audience. However, it is also likely that they perceived the support-receiving goal as easier to attain in private discussion than in a public forum, such as sharing the story with all their SNS friends at once. Public communication on social network sites is often unpredictable, and audiences of public SNS messages are often "ill-defined," and therefore "ill-intended," as the nature of the technology makes the presence of audiences invisible and the postings persistent (Bazarova et al., 2013; boyd, 2008). Therefore, it is likely that people expected a greater degree of challenge or uncertainty about accomplishing the support-receiving goal when they were asked to share the stressful story through the public status update, and therefore put more time and effort into their message composition in considering how to elicit a supportive response from others in their SNS network.

In the present study, the number of SNS friends did not influence the amount of time spent on message composition among those in the public-sharing condition, nor did it alter the relationships tested in Hypothesis 3.[9] This result also supports the claim above that audiences of public SNS messages often go beyond one's circle of friends, and therefore one's perception of the audience is not bounded by the number of SNS friends. Although such an interpretation is

[9] In the public sharing condition, there was no significant relationship between the number of Facebook friends and time spent on message composition (With original values: r = -.17, p =.11; With transformed values: r = -.15, p = .17). Moreover, the number of Facebook friends did not emerge as a significant covariate in the two-way ANOVA testing Hypothesis 3 (With original values: F (1, 171) = 1.31, p = .25; With transformed values: F (1, 171) = 1.87, p = .17).

theoretically valid and indirectly supported in this study, future investigation is warranted to empirically and directly test this speculation.

The present study used time as a proxy for the amount of effort people put into CMC message composition. The level of effort or effort intensity can be defined as the amount of resources a person expends to accomplish a goal (Porter & Lawler, 1968; Yeo & Neal, 2004). Although this approach has been widely utilized in psychological studies (e.g., Blau, 1993; Brown & Peterson, 1994; Rieh, Kim, & Market, 2012), it has also been criticized for its limitations and inability to capture the actual amount of mental effort a person allocates to the task (Fisher & Ford, 1998). Effort is difficult to measure because it is an "invisible, internal, hypothetical construct that is not directly observable" (Yeo & Neal, 2004, p. 231). Moreover, effort can further be explained in terms of its persistency, quality, and direction (Blau, 1993; Yeo & Neal, 2004), and time might be a better indicator of duration than it is of quality or direction of effort.

Moreover, in the present study, people who spent more time on message production were more likely to produce longer messages. The correlation between time spent on message composition and the number of words was positive and statistically significant (with original time: $r = .46$, $p < .001$; with log-transformed time: $r = .45$, $p < .001$). This result seems to suggest that people simply spent more time in order to produce a longer message but not necessarily invested more effort into it. However, it is also found that the time per word was much greater when people used a public SNS channel as opposed to a private SNS channel (public: $M = 4.75$, $SD = 3.05$; private: $M = 2.60$, $SD = 1.59$, $t\ (174) = 5.88$, $p < .001$). This result implies that people spent more time selecting a word as the publicity of the message increased. For an accurate understanding of the effort put into message production, future studies should integrate different

approaches for operationalization (e.g., quality, orientation, direction etc.) and measurement (e.g., self-report measure, observation, or other physiological measures to capture cognitive functioning) of effort and examine how they change as people seek support in different communication environments.

It should also be noted that the relationship between the severity of the problem and the message composition time in the private-sharing condition (H3-2) could have approached statistical significance at a .05 significance level if a directional hypothesis was used to test the difference. The multiple goal framework originally suggested that the primary goals vary in their strength as well as attractiveness (Dillard et al., 1989). Later studies further revealed that the importance a person attaches to achieving a single goal influences the characteristics of the message such as the focus or the embellishment in the message (Samp & Solomon, 1998, 1999, 2005). The present study also found that individuals who faced a moderately severe problem spent a greater time than did those who confronted a mildly severe problem regardless of the publicity of the message (moderately severe condition: M = 126.66, SD = 58.60; mildly severe condition: M = 88.66, SD = 47.71, F (1, 172) = 21.63, $p < .001$, $\eta^2 = .11$, See Table 6 and Table 7 for more details). A significant correlation between problem severity and time spent on CMC message composition also supports the positive relationship between the problem severity and the amount of effort individuals put into CMC message composition (with original time: $r = .15$ $p < .05$; with log-transformed time: $r = .20$, $p < .01$, See Table 8). The magnitude of this relationship, however, was much greater among individuals in the public-sharing condition as opposed to the private-sharing condition. This finding suggests that the importance of the primary goal might be sufficient to influence communication behavior, but the strength of such influence can be affected by the context of communication and the importance of other goals.

Sophistication of Supportive-Seeking CMC Message

Finally, this study found that spending more time on composing a message increased the likelihood of producing a more sophisticated support-seeking CMC message that conveyed multiple goals simultaneously. CMC technologies provide users with opportunities to carefully tailor messages to their purposes and accomplish desirable forms of communication between users (Walther, 1996, 2007). The findings from the present study also suggest that SNS users can develop more sophisticated messages that effectively accomplish their goals, not only by addressing their primary goal but also by responding to situational demands. Although participants were instructed to create a SNS message that would activate supportive responses from their SNS friends, their messages reflected their impression management concerns by highlighting positive aspects of their own behavior or attributing the cause of the problem to external factors.

What do the findings from this study reveal about supportive communication occurring on social network sites? Previous studies on supportive communication have focused on support providers (e.g., Jones & Burleson, 1997; Jung, 1988; MacGeorge, 2001; MacGeorge et al., 2002; Macrae & Johnston, 1998; Otten et al., 1988) and qualities of supportive messages (e.g., Burleson, 2003; Burleson et al., 2005; High & Dillard, 2012; Jones, 2004; Jones & Wirtz, 2006; Lehman et al., 1986; Weiner, 2000). Support-seekers' communication behavior, however, has been a relatively understudied area. Although scholars have investigated various aspects of support providers and support-giving messages that lead to desirable support outcomes, they have overlooked the fact that support seekers can themselves shape the dynamics of supportive interaction by changing ways of representing their stressors.

The present study provides a new insight into existing lines of research on supportive communication. The finding suggests that support seekers can also influence the quality of supportive interaction by framing their problem differently, which would determine how the problematic situation is perceived by the support providers. The same stressors can be framed differently, depending on the communication context, and through balancing and prioritizing different communication goals arising from the interaction between the nature of the problem and the context of communication.

One important factor that people consider when providing support to distressed others is perceived responsibility for the problem, such that people are more likely to comfort others in stress when they perceive the problem as being caused by factors that are external to the support-seeker (Jones & Burleson, 1997; Jung, 1988; MacGeorge, 2001; Otten et al., 1988). The present study, however, found that support seekers can also frame their story to minimize representation of their own responsibility for the problem, by selectively presenting information and attributing causes to external factors. For example, when publicly sharing a story about getting a parking ticket, participants tended to omit the fact that they failed to arrive in the parking garage before the ticketing time, but instead emphasized how the towing company, the police, and the university were greedy and coldhearted. Participants also rationalized their feelings or dramatized their problem to activate empathic reactions from their SNS friends. Although they did not misrepresent their problem, participants selectively presented factual information surrounding the problematic situation. Intentional omission of and emphasis on certain pieces of information are not uncommon in everyday conversation, but may influence the perceptions of the support providers and their intentions to comfort the support seekers.

This finding offers implications for future research on supportive interaction. It suggests that one must understand the motivations and goals of each interactant and examine how these different goals are reflected in communication elements in order to understand the full picture of supportive communication. Although the present study only examined the message production behavior of support seekers, future study would benefit from studying the motivations and behaviors of both support seekers and support providers, and also by testing how representations of the problems made by support seekers influences providers' reactions to the situation and thus the quality of the supportive interaction.

Opportunities and Constraints of Supportive Communication on Social Network Sites

One might question why support-seeking behavior on social network sites is unique, and why investigating support-seeking messages on social network sites is theoretically important. New communication technologies and affordances now available on various communication platforms provide different functions, utilities, and conveniences to users. These new technologies and affordances, however, do not "fundamentally alter the theoretical bounds of human interaction; such interaction continues to be governed by basic human tendencies" (Yzer & Southwell, 2008, p. 8). Rather, what we should seek to understand or learn from research on new communication technologies is "their ability to provide new or previously rare contexts for information expression and engagement" (p. 8).

What new opportunities and constraints do social network sites provide? Many SNS scholars have advocated the benefits of online social networking associated with general usage of social network sites, and believed in the unique contribution of online social networking in promoting psychological well-being (Burke et al., 2010; Ellison et al., 2011; Oh et al., 2013; 2014; Pua, 2013; Steinfield et al., 2008; Valenzuela et al., 2009). The present study provides

empirical evidence suggesting the benefits of social network sites pertain to sharing everyday stressors. Social network sites might provide users with instant opportunities to publicly share their everyday hassles and mild-to-moderate problems with a large audience. Although daily stressful events have a less significant impact upon individuals than negative major life events (Brantley et al., 1987; Flett et al., 1995), they occur more frequently and therefore are often the primary determinants of mood and psychological well-being (Blankstein & Flett, 1992; DeLongis et al., 1982, 1988). Daily hassles and negative feelings are also less visible to others, and therefore elicit less support from others, unless people actively express their need for support (Flett et al., 1995).

Unlike traditional CMC support groups that are oriented to particular illnesses or problems, people can share a wide range of daily stressful stories in a way that satisfies their needs and concerns using social network sites. Broadcasting through social network sites also allows users to share their small moments and minor stressors with a large and diverse audience, which in the old days was only possible through mass media (i.e., appearing on national television). Minor hassles and difficulties can be publicly communicated on social network sites in a more casual way without overburdening the audience who might feel obligated to comfort their distressed friend if they were communicating about it privately or face-to-face.

A diversity of audiences on social network sites, ranging from close family members to loosely connected acquaintances, further provides support seekers with an opportunity to receive emotional support that is more optimal than in CMC or face-to-face. According to Thoits (2012), significant and distanced others both contribute to emotional sustenance of the distressed person. Significant others such as family members and close friends are good sources of providing love, caring, and concern. On the other hand, emotional support from distanced others is also effective

when it comes from those who had a similar experience as they are likely to express "empathic understanding" and "validation of feelings" (Thoits, 2012, p. 153).

This opportunity to easily and casually reaching a large, diverse, and "ill-defined" audience, on the other hand, can also constrain users' support-seeking behavior. On social network sites, the characteristics or the size of the audience is less likely to be certain as they are no longer identifiable by space and time (Bazarova et al., 2013). Thus, SNS users are likely to form expectations and perceptions of the audience based on the channel and affordance they select for communication, and this also happens when people seek emotional support on social network sites. In the present study, the number of SNS friends did not emerge as a critical variable that shaped support-seeking behavior when the participants were using a public SNS channel to seek emotional support. Instead, the context of public communication triggered impression-relevant concerns and made the participants carefully produce a support-seeking message. Unlike intimate contexts of sharing emotions, such as crying or yelling at a friend about how stressed and upset one is, public representation of a stressful event is a more complex task requiring more care, particularly in times of stress. This may lead people to reframe their story, rationalize their feelings, and in turn, makes their message more "sophisticated," which, in turn, increases the likelihood of receiving encouragement and comfort they need to cope with everyday stress.

New social technologies create new dynamics of communication not because they theoretically alter human interaction and the motivation behind it, but because they shape how communication goals are enacted and accomplished (Walther, 2007). The present study employed the multiple goal framework to provide a new insight into the mechanism of support-seeking behavior on social network sites, especially in terms of how new opportunities and

constraints of social network sites shape support-seeking communication on those sites by creating a dynamic between the primary and the secondary goals. The finding from this study is expected to shed light on understanding supportive interaction on social network sites. It suggests that support seekers are not just passive recipients who await comforts from good-hearted others. Instead, they are communicators whose communication goals and messages vary, depending on the nature of the problem and the context of communication. Future research should continue the effort to view the whole mechanism of supportive interaction on social network sites by understanding communication goals of both support seekers and support providers, and also by examining how affordances of social network sites complicate ways they pursue multiple communication goals.

Limitations

Several limitations of the present study deserve attention. The first limitation involves the characteristics of the participants recruited for the laboratory experiment. The present study was conducted among the college student sample. The selection of the college student sample was inevitable, as the scenario approach used in the present experiment required a narrow-range of participants who would share similar experiences, and thereby show similar emotional reactions (i.e., stress levels) to a certain problematic event. However, the finding suffers from the external validity issue, as evidence suggests that findings from student and nonstudent samples are sometimes different in both the direction and the size of effects (Gordon, Slade, & Schmitt, 1986; Henrich, Heine, & Norenzayan, 2010; Notani, 1998; Peterson, 2001; Sears, 1986). A study on stress and psychological adjustment also found a significant difference between younger and older adults in stress perception: older adults were more optimistic than younger adults, whereas younger adults experienced greater stress and showed poorer psychological adjustment than did

older adults (Chang, 2002). A study also showed an age difference in the relationship pattern among perceived psychological difficulties, social support, and well-being (Kafetsios & Sideridis, 2006).

Moreover, students and nonstudents are different in their communication and intellectual characteristics; college students are equipped with stronger cognitive abilities, especially those related to performing tasks and answering questions, than nonstudent populations (Sears, 1986). College education also influences the development of communication competence (Rubin, Graham, & Mignerey, 1990). Since cognitive abilities are likely to influence skills or competence related to supportive communication (Burleson, 2003; MacGeorge et al., 2004; Samter, 2002), support-seeking messages analyzed in this study could be more sophisticated than those written by nonstudents. Future study should replicate this study with nonstudent samples with varying levels of age and education to enhance the external validity of the relationships hypothesized in the present study.

Moreover, in the present study, males accounted for a larger proportion of participants than did females (see Table 1). Previous studies have suggested some gender differences in the way individuals react to and cope with stressors (e.g., Wang et al., 2007; Watson, Goh, & Sawang, 2011), communicate support (e.g., Ashton & Fuehrer, 1993; Burleson et al., 2005; Holmstrom et al., 2005), and disclose themselves on social network sites (e.g., Al-Saggaf & Nielsen, 2014; Kuo, Tseng, Tseng, & Lin, 2013; Mehdizadeh, 2010). Although gender did not emerge as a significant predictor of the main outcomes or a moderator of the proposed

relationships,[10] it would be worthwhile in future studies to explore whether characteristics shared by the same gender group influence support-seeking behaviors on social network sites.

Thirdly, the study employed a forced experimental design by creating a hypothetical stressful situation and forcing participants to use either a public or private SNS channel to solicit emotional support. Although the manipulation was successful in engendering differential affective states among participants, it should be noted that people were still responding to a fictitious situation, and therefore the findings of the present study are again affected by issues related to external validity. Moreover, because the scenario approach relies on participants' imaginary reactions to the hypothetical situation, creating the same level of stress in all participants is unlikely, as the same event could create different levels of stress across individuals (Alspaugh, Stephens, Townsend, Zarit, & Greene, 1999). Future studies might consider employing a direct measure of stress or physiological measures to more accurately capture emotions and stress levels. They might also consider simulating or using real events that upset people and generate stresses.

Stressors are different not only in their intensity but also in their nature (i.e., controllability, past experiences etc.) Originally, Cutrona and Russell (1990) identified several characteristics of life events, including desirability, controllability, duration, and life domain affected by the event. The present study focused on desirability of an event by manipulating the negative consequences associated with the event and looked at its influence on goal perception and support-seeking behavior. However, it is also likely that other characteristics of the stressful

[10] There was no significant gender difference in the importance of the support-receiving goal (t (174) = 1.67, p = .10) or the impression management goal (t (174) = .56, p = .58). Additionally, there was no main effect of gender on time spent on CMC message composition (F (1, 168) = .02, p = .88) or interaction effects (with problem severity: F (1, 168) = .04, p = .85; with message publicity: F (1, 168) = .73, p = .39; three-way interaction: F (1, 168) = .46, p = .50). Finally, levels of message sophistication were not different between males and females (χ^2 (3) = 1.11, p = .78).

event (i.e., controllability, duration or past experience, life domain) can influence coping strategies and the types of support needed. For example, Cutrona and Russell's (1990) study found that individuals were more likely to seek comfort when they faced an uncontrollable and negative situation. When the occurrence or consequence of a stressful situation is controllable, individuals were more likely to pursue instrumental support to overcome the situation. Future studies should consider replicating the present study in other stressful situations to reflect various dimensions of stressors and see how they influence the pursuit of different coping strategies and support-seeking behaviors.

Fourthly, the present study analyzed the content of support-seeking CMC messages based on the goals reflected in the messages. Although the coding scheme was developed based on previous studies that examined how different goals are reflected in communication (Caughlin et al., 2008; Peterson & Albrecht, 1996; Scott et al., 2013), the intention or goal underlying each message can only be speculated upon based on prior knowledge and assumptions. It should be acknowledged that the same message can serve different goals depending on how communicators employ it. For example, the coders in the present study treated minimizing one's own fault in the content of the message as reflecting an impression management goal, but it is also likely that some participants were trying to receive empathic responses from their SNS friends by portraying themselves as innocent victims. Future studies will benefit from diversifying the qualitative approach to the experiment, and by exploring the true intentions underlying different CMC messages and the outcomes people anticipate from them.

Finally, the findings from the present study should be discussed in relation to the fundamental nature of human behavior, especially in times of stress. It should be noted that the purpose of this study was not to preclude the automaticity of human behavior in response to

stressors. Humans often show uncontrolled emotional responses to stressors, and therefore intentional expression of emotions is often difficult, as it lies beyond people's conscious choice (Wegner & Bargh, 1998; Zajonc, 1998). Having an extreme level of stress can impair the ability to process information and regulate thoughts (Arnsten, 2009; Shansky & Lipps, 2013), which further hinders one's capability and motivation to carefully formulate a support-seeking message.

Goal-oriented perspectives view communication as inherently goal-driven (Berger, 2007; Caughlin, 2010; Dillard et al., 1989; O'Keefe, 1988; Wilson, 2007), but they also acknowledge that the communicator is not always conscious of the goal that the message pursues (Bargh & Chartrand, 1999; Fitzsimons & Bargh, 2003; Kellermann, 1992). Instead, selection of communication symbols often occurs as a result of unconscious consideration of goals and automatic adjustment to situational constraints (Kellermann, 1992), which are defined in the multiple goal framework as "secondary goals" (Dillard, 1990; Dillard et al., 1989). In the present study, the impression management goal was the secondary goal that constrained people's support-seeking behavior on social network sites. However, it is beyond the scope of the present study to determine whether such a process occurred at a conscious or unconscious level.

Additionally, the present study was conducted in the context of mild-to-moderate levels of stress, and impression management concern was found to regulate support-seeking behaviors to a certain extent. It is, however, unclear whether such a regulation process also prevails when people are confronting and suffering from an extreme level of stress. Future studies should explore the mechanisms through which stressors influence certain communicative behaviors, and the roles of automatic and conscious processes in formulation of goals and messages in times of stress. Future studies should also examine whether the communication context and different affordances of social network sites trigger people to consciously or unconsciously pursue

particular goals, and whether their level of stress or other external factors influence the self-regulation process of balancing various needs.

The use of self-report measures should also be discussed in conjunction with the nonconsciousness of goal formation. The present study measured the importance of two goals, the support-receiving goal and the impression management goal, using self-report measures. Although the validity and the reliability of the measures were rigorously tested, they are not immune to self-report bias, as some goals are likely to be formed on an unconscious level. It should be acknowledged that people's judgments on selections of symbols and languages can also occur without awareness of the sets of rules they pursue, because people often communicate and behave according to automatic scripts embedded in their everyday routine (Kellermann, 1992). Participants could provide their best guesses on how and why they communicated in a particular way or what goals they pursued, but those guesses might deviate from their true intentions and goals (Kellermann, 1992). Furthermore, there might be other communication goals, beyond the support-receiving and impression management goals, that participants pursued while they were composing their support-soliciting messages. Future studies should consider measuring various types of communication goals and exploring ways of measuring those goals on an implicit or unconscious level.

Conclusion

Humans are social animals. People socialize and communicate with others to satisfy their needs, and more than often the satisfaction of those needs requires actions of others (Kellermann, 1992). The present study was conducted to answer a simple question: How do people communicate their needs for support on social network sites? The findings from this study suggest that people develop messages that not only address their primary needs (i.e., receiving comfort), but also respond to constraints arising from the context of communication (i.e., message publicity). Support-seekers invest more time and effort into CMC message production when they are motivated to address multiple goals, which increases the likelihood that they will develop more sophisticated messages that effectively reflect their needs for support and impression management. Supportive communication on social network sites is unique in that it provides a different combination of opportunity and constraint to users, but fundamentally, it does not alter the role of supportive human communication and true motivation underlying such communication. As discussed by Yzer and Southwell (2008) and further elaborated by Walther (2014), studies on communicative behaviors on social network sites are meaningful and theoretically interesting, not because they provide opportunities to develop new theories and predictions, but because they offer new insights and perspectives on old ideas and theories about the very nature of human beings.

APPENDICES

APPENDIX A. Distribution of Original, Log-Transformed, and Square Root-Transformed Number of Facebook Friends and Time Spent on Message Composition

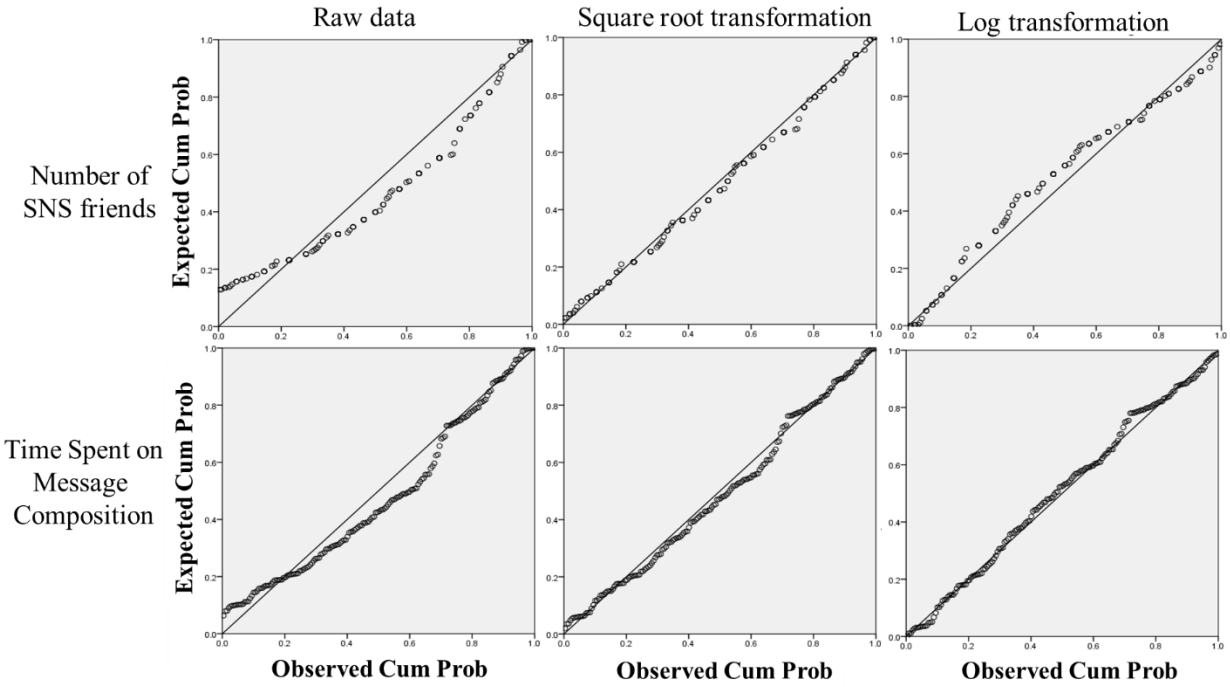

Figure 2. Probability-Probability Plots of Number of SNS Friends and Time Spent on CMC Message Composition

APPENDIX B. Results of Neutral Stimuli Pretest

Table 10. Pretest of IAPS Stimuli: Means and Standard Deviations of Arousal Scores

IAPS#	*N*	*M*	*SD*	IAPS#	*N*	*M*	*SD*
p5000	24	3.22	.95	p5711	24	3.06	.99
p5020	24	3.31	1.16	p5731	24	3.67	1.23
p5030[a]	24	4.03	.82	p5740	24	3.22	1.05
p5130	24	3.76	1.07	p5750	24	3.68	1.31
p5250	24	3.44	.91	p5800	24	3.03	.93
p5390	24	2.98	.93	p5875	24	3.63	1.08
p5551	24	3.16	1.14	p7036[a]	24	4.43	.83

Note: a. Deleted in the main experiment.

APPENDIX C. Emotional State after Neutralization Treatment

Table 11. Means and Standard Deviations of SAM Scores after Neutralization Treatment

	Public				Private				*F*
	Moderately Severe		Mildly Severe		Moderately Severe		Mildly Severe		
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	
Emotional Valence	5.89	1.33	6.27	1.16	5.93	1.48	6.59	1.15	2.89*
Emotional Arousal	4.13	1.84	3.31	1.45	3.98	2.06	3.96	1.84	1.64

*$p < .05$, *$p < .01$, ***$p < .001$, two-tailed.

APPENDIX D. Results of First Pretest

Table 12. First Pretest of Twelve Scenarios: Means and Standard Deviations of Perceived Reality and Perceived Severity

Scenarios	Perceived Reality				Perceived Severity			
	N	*M*	*SD*	*t*	*N*	*M*	*SD*	*t*
Relationship Issue[a]	48	5.13	1.50		48	5.02	1.47	
Mild	24	5.17	1.43	.16	24	4.19	1.38	-4.68***
Moderate	24	5.10	1.59		24	5.85	1.04	
Roommate Issue	48	4.90	1.62		48	5.30	1.51	
Mild	24	5.46	1.39	2.50*	24	4.31	1.27	-6.03***
Moderate	24	4.35	1.68		24	6.29	1.00	
Job Loss	48	4.94	1.81		48	5.80	1.04	
Mild	23	6.16	0.86	5.87***	23	5.59	0.93	-1.31
Moderate	25	3.81	1.73		25	5.99	1.12	
Car Trouble[a]	48	5.54	1.41		48	5.35	1.29	
Mild	24	5.88	1.03	1.67	24	4.74	1.28	-3.71**
Moderate	24	5.21	1.66		24	5.96	0.98	
Academic Failure	48	5.42	1.32		48	5.86	1.09	
Mild	24	5.74	1.34	1.68	24	5.60	1.13	-1.72
Moderate	24	5.11	1.23		24	6.13	0.99	
Scholarship Loss[a]	42	5.07	1.36		42	6.08	1.07	
Mild	22	5.29	1.23	-.49	22	5.91	1.02	-2.43*
Moderate	20	4.83	1.49		20	6.27	1.13	

Note: a. Selected for the second pretest. $^{*}p < .05$, $^{*}p < .01$, $^{***}p < .001$, two-tailed.

APPENDIX E. Results of Second Pretest

Table 13. Second Pretest of Six Scenarios: Means and Standard Deviations of Perceived Reality, Perceived Severity, and Likelihood of Seeking Support on Facebook

Scenarios	Perceived Reality			Perceived Severity			Seeking Support on FB		
	M	*SD*	*t*	*M*	*SD*	*t*	*M*	*SD*	*t*
Relationship	5.10	.99		4.75	1.00		1.88	1.54	
Mild	5.27	1.43	1.27	4.25	1.44	-4.53***	1.66	1.50	-1.78
Severe	4.92	1.02		5.26	0.84		2.10	1.85	
Scholarship loss	5.10	1.25		5.44	0.84		2.97	1.98	
Mild	5.22	1.36	1.05	5.11	1.11	-3.34**	2.90	2.18	-.38
Severe	4.98	1.44		5.77	0.89		3.03	2.21	
Car trouble	5.66	1.32		5.10	0.99		3.03	1.87	
Mild	6.09	1.20	3.25**	4.61	1.18	-3.55**	2.97	2.16	-.42
Severe	5.23	1.77		5.41	1.08		3.10	1.94	

Note: $N = 31$. $^{*}p < .05$, $^{*}p < .01$, $^{***}p < .001$, two-tailed.

APPENDIX F. Stressful Scenarios Used in Main Experiment

Mildly Severe Version

Imagine that you have driven to campus to meet with a group after dark. Since you may park in any available space and it is raining, you decide to park in a university garage. After your meeting ends, a friend asks if you want to go to a party. Since you don't have any major commitments the next day you agree, leaving your car parked in the garage. Later that night you get a ride home with your friend, with your car still in the garage. Although you planned to get your car before the 7 AM ticketing time, your alarm does not wake you up and you arrive at the garage at 7:05 to find a police officer writing you a $25 parking ticket.

Moderately Severe Version

Imagine that you have driven to campus to meet with a group after dark. Since you may park in any available space and it is raining, you decide to park in a university garage. After your meeting ends, a friend asks if you want to go to a party. Since you don't have any major commitments the next day you agree, leaving your car parked in the garage. Later that night you get a ride home with your friend, with your car still in the garage. Although you planned to get your car before the 7 AM ticketing time, your alarm does not wake you up and you arrive at the garage at 7:05 to find a tow truck driving away with your vehicle. To get your car back you will have to pay the $80 towing fee, all of your unpaid parking tickets, and an additional fine for a total of $350.

APPENDIX G. Results of Manipulation Check

Table 14. Means and Standard Deviations of Perceived Severity and SAM Scores after Reading Scenario

	Public			Private			Total		
	Moderately Severe	Mildly Severe	Total	Moderately Severe	Mildly Severe	Total	Moderately Severe	Mildly Severe	Total
Perceived Severity[a]	5.52 (1.00)	4.34 (1.27)	4.95 (1.28)	5.52 (.89)	4.74 (1.21)	5.12 (1.13)	5.52 (.94)	4.55 (1.25)	5.04 (1.20)
Emotional Valence[b]	1.80 (.97)	2.76 (1.26)	2.26 (1.21)	1.71 (.90)	2.48 (1.13)	2.11 (1.09)	1.76 (.93)	2.61 (1.19)	2.19 (1.15)
Emotional Arousal[c]	7.65 (1.73)	6.05 (1.99)	6.88 (2.01)	7.61 (1.65)	6.65 (1.74)	7.12 (1.75)	7.63 (1.68)	6.37 (1.87)	7.01 (1.88)

Notes: Values are means and standard deviations in the parentheses. a. N = 175; b. N = 173; c. N = 176

Table 15. ANOVA Results of Perceived Severity and SAM Scores after Reading the Scenario

	Perceived Severity				Emotional Valence				Emotional Arousal			
	df	*MS*	*F*	Partial η^2	*df*	*MS*	*F*	Partial η^2	*df*	*MS*	*F*	Partialη^2
Problem Severity	1	41.82	34.46***	.17	1	32.16	27.91***	.14	1	71.79	22.74***	.12
Message Publicity	1	1.76	1.45	.01	1	1.48	1.29	.01	1	3.60	1.14	.01
Severity × Publicity	1	1.66	1.37	.01	1	.37	.32	.002	1	4.42	1.40	.01
Error	171	1.21			172	1.15			172	3.16		

*p < .05, **p < .01, ***p < .001, two-tailed.

APPENDIX H. Codebook for Content-Analysis of Message Sophistication of Support-Seeking CMC Messages

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Introduction

This protocol is aimed at assessing sophistication of the support-seeking CMC messages composed by participants. The level of message sophistication is operationalized as the extent to which the message reflects a more sophisticated design logic.

General Rules

1. Coding occurs at the level of the message, based on a holistic assessment of its overall characteristics.
2. Coding occurs based on the explicit content but not on the implicit intent implied in the message.
3. Coding occurs based on the highest level of the logic appear in the message. (e.g., if a message contains an expression of sadness and a support-seeking request, it must be coded as conventional.)
4. Coding of "no logic" will occur only when the message contains the factual information about the scenario without further interpretation or expression.

No Logic (0)

Operational Definition	Factual information about the scenario without further interpretation or expression.
Examples	"Got tickets and car towed in a night...." "just got my car towed. $350" "Aibo I got up late this morning, so I received a parking ticket."

Expressive Design Logic

General principles	Communication is a medium for expressing feelings. Clarity, openness, honesty, unimpeded expression. Goal is self-expression.
Operational definition and features that guarantee expressive code	• Explicit blame, criticism, complaints, regrets without explanation of contexts or rationale. • Automatic or reflexive reaction to the situation. • Explicit expressions of negative emotions or mental state without explaining the cause.
Examples	"Dammit, I got my car towed." "Really, 5 minutes late and I have a ticket!!! >:(" "OMGOMGOMG PACE … I JUST GOT A TICKET LITERALLY 5 MINUTES AFTER THE TIME WAS UP."

Conventional Design Logic

General principles	Communication is a game played cooperatively by social rules. Appropriateness, some control over messages to serve immediate goals. Given the dominant goal (s) in this context, a message must address at least one goal either explicitly or implicitly to qualify as conventional.
Operational definition and features that guarantee conventional code	Statements addressing a support-receiving goal • Direct request of support. • Seeking for empathy by legitimizing one's emotions or feelings. • Expressions of seeker's support-oriented expectations or needs. Statements addressing an impression management goal • Showing positive aspects of oneself (e.g., describing how one tries to cope with the situation; how one is capable of dealing with the situation; how good or nice one is). • Minimizing the responsibility of oneself in causing the problem or attributing the cause of the problem to external factors. • Justifying one's behavior.
Examples	Support-receiving goal "…Could I be more damned? …anyone can tell me how to appeal for this?" "…80 bucks for the towing fee and 350 for the tickets… #someonepayformyticketplease" "…my baby got towed... I feel so upset...better talk to someone." "i'm so pissed. I got a prking ticket … can you believe this?! what would you do?" Impression management goal "…I feel like we shouldn't be reprimanded for being smart and not drinking and driving." "…How annoying is that? I was just trying to be safe and do the right thing." "I thought drinking responsibly gets rewarded? I parked my car at Com arts building so that i wouldnt drink and drive... of course i got a ticket!"

Rhetorical Design Logic

General principles	Communication is the creation and negotiation of social selves and situations. Flexibility, symbolic sophistication, depth of interpretation Communication addresses multiple goals.
Operational definition and features that guarantee rhetorical code	• Inclusion of statements serving both support-receiving and impression management goals. • Redefinition or elaboration of the situation in a positive light.

- In-depth interpretation of the situation.

Examples	"…I was asked to go out, and of course since I got everything done I said yes…I guess "balancing" your fun and work is impossible these days…"
	"…Oh well, just a bad luck…my day will only get better from here."
	"… the university should be a little bit more lenient with students..after all they're constantly saying we're the ones with no money in our bank accounts.."

APPENDIX I. Consent Form, Survey, and Debriefing Form

CONSENT FORM

You are being asked to participate in a research study conducted to learn about how people seek social support on social network sites. You have been selected as a possible participant in this study as (a) you are an adult aged between 18 and 29, and (b) you have an active Facebook account. From this study, the researchers hope to learn adults' support-seeking behavior on social network sites and what goals they have when they post a stressful story on social network sites.

This lab study will take about 30 minutes. You will read a hypothetical scenario about a stressful event and imagine that you are actually experiencing the stressful situation described in the scenario. You will then be asked to post a support-seeking message on your Facebook. Either before or after composing a message to be posted on your Facebook, you will be asked questions about goals and concerns you would have when sharing the story with your Facebook friends. At the end of the study, you will report your demographic information.

There is no potential risk of participating in this study. All the information you provide during study participation will remain confidential to the maximum extent allowable by law. Data will be stored in a password-protected computer at Michigan State University for at least three years. No one other than the researchers, research staff, and the MSU IRB will have access to the data. No identifying information will be stored with the data. Additionally, your email address will be kept separately from the main dataset and will not be linked with the data. The results of this study may be published or presented at professional meetings, but identities of the participants will remain anonymous.

Your participation in this study is voluntary. Refusal to participate will have no effect on your grade or evaluation. You may choose not to answer specific questions or to stop participation at any time without any consequences.

You will receive 1 research credits through the SONA system for your participation in this study per the agreement with your professor/instructor. If you do not want to participate in the research study but still wish to receive extra-course credit, you will be given the opportunity to complete an alternative assignment. The alternative assignment will take about the same time and effort as does the survey.

If you have any concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact Hyun Jung Oh (ohhyun4@msu.edu), Department of Advertising + Public Relations, Michigan State University, 309 Communication Arts and Sciences, East Lansing, MI 48824.

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact the Michigan State University's Human Research Protection Program at (517) 355-2180, Fax (517) 432-4503, email irb@msu.edu, or regular mail at 207 Olds Hall, MSU, East Lansing, MI 48824. Any contact you make may be done so anonymously.

By clicking the next button, you are voluntarily agreeing to participate in this research study.

SQ. Do you have a Facebook account?

a. Yes
b. No (end the survey)

Part 1. Neutralization Treatment

Before starting the main experiment, we will show you some pictures. Please try to concentrate on the images while you view the pictures.

[NOTE: Participants will view six random neutral pictures.]

Now, you will be answering some questions asking your current emotional state.

Q. Please select an image that best reflects your current emotional valence.

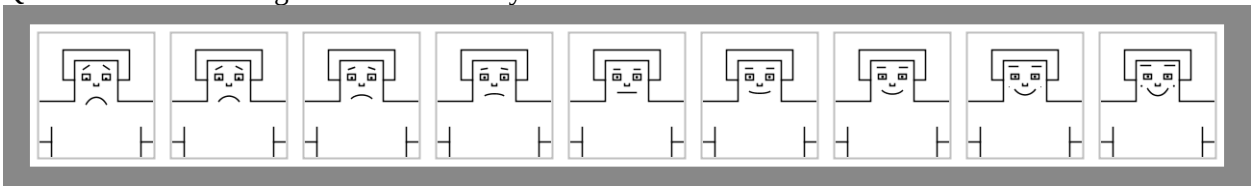

Figure 3. SAM Scale – Emotional Valence

Q. Please select an image that best reflects your current emotional state.

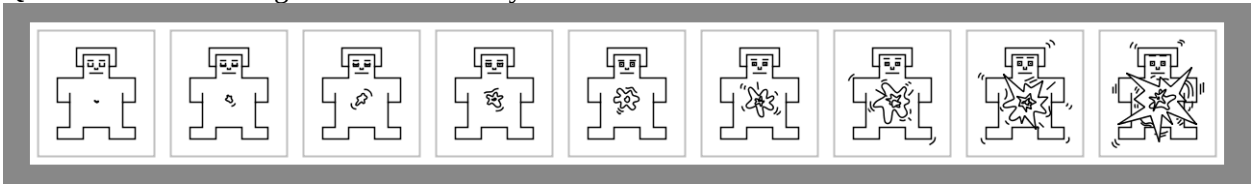

Figure 4. SAM Scale – Emotional Arousal

Part 2. Manipulation

Now, you will read a hypothetical scenario depicting a stressful situation. Please read the scenario as thoroughly as possible and imagine that the scenario is actually happening to you right now.

[NOTE: Participants will read one of the following scenarios depending on the condition assigned.]

[Mildly Severe Condition] Imagine that you have driven to campus to meet with a group after dark. Since you may park in any available space and it is raining, you decide to park in a university garage. After your meeting ends a friend asks if you want to go to a party. Since you don't have any major commitments the next day you agree, leaving your car parked in the garage. Later that night you get a ride home with your friend, with your car still in the garage. Although you planned to get your car before the 7 AM ticketing time, your alarm does not wake you up and you arrive at the garage at 7:05 to find a police officer writing you a $25 parking ticket.

[Moderately Severe Condition] Imagine that you have driven to campus to meet with a group after dark. Since you may park in any available space and it is raining, you decide to park in a university garage. After your meeting ends a friend asks if you want to go to a party. Since you don't have any major commitments the next day you agree, leaving your car parked in the garage. Later that night you get a ride home with your friend, with your car still in the garage. Although you planned to get your car before the 7 AM ticketing time, your alarm does not wake you up and you arrive at the garage at 7:05 to find a tow truck driving away with your vehicle. To get your car back you will have to pay the $80 towing fee, all of your unpaid parking tickets, and an additional fine for a total of $350.

Q. Please imagine that the situation you have just read is actually happening to you. What would you feel if you actually experience this situation? Please select an image that best depicts your emotional valence.

[See Figure 3]

Q. Again, please select an image that best depicts your feeling if this situation actually happens to you.

[See Figure 4]

Part 3. Importance of Communication Goals

[NOTE: Part 3 and Part 4 will appear in a random order.]

[Public Sharing Condition]
Now, please tell us what goals or concerns you would have in mind when you post about this situation on your Facebook Status Update. Indicate how much you agree or disagree with each of the following statements.

[Private Sharing Condition]
Now, imagine that you are sending a Facebook Private Message to one of your Facebook friends about the stressful situation to receive some comforting from him/her. Choose a Facebook friend that you would share the story with. Provide the first name of the friend and his/her relationship to you below.

First name: _____
Relationship: _____

Q. Now, please tell us what goals or concerns you would have in mind when you share this situation publicly with your Facebook friends via Facebook Status Update (privately with OOOO via Facebook Private Message). Indicate how much you agree or disagree with each of the following statements.

	Strongly Disagree					Strongly Agree
It is very important to me to convince my Facebook friends (this person) and activate supportive response after they (he or she) read(s) my posting.	○	○	○	○	○	○
I am very concerned about getting supportive response with this message.	○	○	○	○	○	○
I really care whether my Facebook friends (he or she) comfort(s) me.	○	○	○	○	○	○
The support-receiving outcome of this message will have an important consequence for me.	○	○	○	○	○	○
I really want my Facebook friends (this person) to provide me with necessary support.	○	○	○	○	○	○
I am concerned with making (or maintaining) a good impression in this message.	○	○	○	○	○	○
I will be careful to avoid saying things which are socially inappropriate.	○	○	○	○	○	○
I will be very conscious of what is appropriate an inappropriate in this message.	○	○	○	○	○	○
I am concerned with putting myself in a “bad light” in this message.	○	○	○	○	○	○
I don’t want to look stupid in this message.	○	○	○	○	○	○

Part 4. Message Composition

[Public Condition] Now, imagine that you are posting something about this situation on your Facebook Status to seek some comforting from your Facebook friends. In the blank below, please compose the exact message that you would post on your Facebook Status. You may spend as much as time you need on this page.

[Private Condition] Now, imagine that you are sending a Facebook Private Message to [the name of the friend appears here] about the stressful situation to receive some comforting from him/her. In the blank below, please compose the exact message that you would send to your friend using Facebook Private Message to get some comforting from him/her. You may spend as much as time you need on this page.

[NOTE: Time spent on this page will be recorded.]

Part 5. Manipulation Check

Q. This section will ask your personal thought on the scenario you read. Please click the circle that best describes your thought. Refer to the examples below.

If the situation was not at all serious, you may check the circle that is closest to "Not at all serious".

Not at all serious	●	○	○	○	○	○	○	Very serious

If you think the situation was moderately serious, you can check the box that is in the middle.

Not at all serious	○	○	○	●	○	○	○	Very serious

The situation I read is...								
Not at all serious	○	○	○	○	○	○	○	Very serious
Not at all severe	○	○	○	○	○	○	○	Very severe
Not at all stressful	○	○	○	○	○	○	○	Very stressful
Not at all upsetting	○	○	○	○	○	○	○	Very upsetting

Part 6. About Me

Q. In what year were you born? _____

Q. What is your sex?

Male
Female
Refuse to answer

Q. How many Facebook friends do you have? _____

DEBRIEFING FORM

Thank you for taking part in the study. The purpose of this form is to give you more information about the research study and its goal.

For this study, we are interested in how people share a stressful story on Facebook especially, whether they consider different goals and such consideration influences their message production. We are also interested in whether the severity of the problematic situation and the communication channel (public vs. private) influence perceived goal importance and message production.

Please do not share any information about this study with anyone who could potentially participate in the study. Sharing even the littlest detail could have negative impacts on the accuracy of our research findings.

If you have any questions about the study and its results, we encourage you to ask. Also, since you are now given additional information about the study that you were unaware during the initial consent process, you now have the option to withdraw consent to use your data. Please let us know, if you wish to withdraw your consent. You may contact the investigators, Hyun Jung Oh (ohhyun4@msu.edu) and Robert LaRose (larose@msu.edu).

Thank you very much for your participation.
Best wishes,

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