Social Support and Computer-Mediated Communication

A State-of-the-Art Review and Agenda for Future Research

Stephen A. Rains

University of Arizona

Kevin B. Wright

George Mason University

Despite a great deal of speculation about the potential advantages and disadvantages of computer-mediated communication (CMC) for social support processes, few attempts have been made to summarize the findings from this body of scholarship. The present chapter reports a state-of-the-art review of research on computer-mediated support in an effort to determine whether the purported promise and peril of CMC has been realized. Empirical studies examining the use of CMC for acquiring social support and the outcomes of support acquired online are reviewed and synthesized. The review concludes with an agenda for future research identifying pressing questions for computer-mediated support scholarship.

Social support is central to well-being (Goldsmith, 2004; Uchino, 2004). Indeed, the benefits of social support have been demonstrated across a wide variety of contexts and populations (Burleson, Albrecht, & Sarason, 1994; Cohen, Underwood, & Gottlieb, 2000; Thoits, 2011). Although much of this research has been conducted in the context of face-to-face interaction, the use and implications of computer-mediated communication (CMC) for social support has been a longstanding topic of interest. Claims about the potential utility of computer-mediated support can be traced back to some of the earliest research examining the social implications of CMC. In reviewing a series of experiments they conducted during the early 1980s, Kiesler and colleagues suggested that, “It might be possible to turn computer networks into social support networks” (Kiesler, Siegel, & McGuire, 1984, p. 1131). Despite being made prior to the widespread adoption of the contemporary Internet, Kiesler and colleagues’ prediction was quite prescient. Data from the Pew Internet and American Life Project (Fox, 2011) indicate that almost one in five adult Internet users in the United States have ventured online for health-related peer support.
Use of CMC among the lay public for exchanging social support has been matched by the growth in scholarship on this topic. Much has been written about the opportunities and pitfalls of CMC for acquiring and sharing support (e.g., Caplan & Turner, 2007; High & Solomon, 2011; Rains & Young, 2009; Tanis, 2008a; Walther & Boyd, 2002; Wright & Bell, 2003; Wright, Rosenberg, Egbert, Ploeger, & Bernard, 2013). Although there appears to be a fair amount of consensus about the potential implications of CMC for social support processes, few attempts have been made to synthesize existing quantitative and qualitative research and formally evaluate the uses and effects of CMC. The present chapter reports a state-of-the-art review of computer-mediated support research in an effort to bridge this gap and advance scholarship on this topic in two ways. First, empirical research will be summarized in an effort to evaluate claims about the potential support-related implications of CMC made in previous reviews (e.g., Caplan & Turner, 2007; Tanis, 2008a; Wright & Bell, 2003). We consider whether the results from existing empirical research are consistent with the purported benefits and limitations of CMC. Such a synthesis is critical to advance this body of research and better understand the degree to which the proposed promise and peril of CMC for social support has been realized. A second objective of this chapter is to outline an agenda for future research. We reflect on what is known about the implications of CMC for social support and offer an outline for additional scholarship on this topic. This effort will help provide a framework scholars can use to identify and pursue the most pressing questions regarding computer-mediated support.

The review will proceed as follows: We first define key terms, identify scope conditions, and discuss the procedures used to locate the research reports reviewed in this chapter. Next, we summarize existing empirical research on computer-mediated support. We focus specifically on scholarship examining support seeking in computer-mediated settings, outcomes of acquiring computer-mediated support, and the implications of computer-mediated support in three specific contexts. For each topic, we evaluate whether the proposed implications of CMC are consistent with the results of extant research. We conclude the review by sketching an agenda for future studies of computer-mediated support. Four specific avenues for scholarship will be considered.

**Key Terms, Scope Conditions, and Research Report Identification**

In discussing the body of research on computer-mediated support, it is important to define two key terms used throughout the review. First, social support is an umbrella term that generally involves providing assistance to others (Burleson & MacGeorge, 2002). In this review, social support is typically discussed in terms of the support individuals have received from others (i.e., received support) or the degree to which they perceive that others are available to serve as a support resource (i.e., perceived support). A few studies included in the review examine social support in terms of one's social connections (i.e., social integration). Second, we use the term CMC to refer to Internet-based technologies that make possible text-based interaction among dyads or groups. Various forms of CMC may serve as a means for exchanging social support. In addition to online discussion communities, social support has been studied among users of technologies such as e-mail, instant messaging, blogs, social network sites (SNSs), and massively multiplayer online games (MMOGs).

In addition to defining key terms, it is important to consider some scope conditions for this project. This review largely focuses on support seeking and reception/outcomes. These two topics have been consistently studied in this body of research and have the potential to offer important insights about computer-mediated support processes. Space limitations prevent us from extensively reviewing other research detailing the development of support-focused interventions involving CMC or considering content analyses examining the explicit types of support messages shared in various computer-mediated contexts. Although we believe that such research is important, both topics have been addressed in other reviews (Rains, Peterson, & Wright, 2015; Rains & Young, 2009). A second scope condition stems from the tendency for research on computer-mediated support to focus on individuals coping with illness. Much of this review will rely on studies conducted in the context of health. However, we believe that the underlying support processes examined in these works are relevant beyond health contexts. In addition, we dedicate a section of the review to research conducted in other contexts, including among older adults, in facilitating cultural adaptation, and in educational settings.

In order to identify research reports for the review, we conducted a comprehensive literature search for articles published prior to 2014. We used the term “social support” along with the terms “computer-mediated communication,” “online,” or “Internet” to search a series of EBSCOhost databases (i.e., Academic Search Complete, Communication and Mass Media Complete, ERIC, Medline, PsycArticles, and PsycInfo) for published articles related to social support and CMC. The abstracts for all reports were reviewed to determine their relevance to the project. We also used the preceding terms and searched Google scholar, reviewing the first 100 results for additional reports. A follow-up search of EBSCOhost and Google scholar was conducted during January, 2015 to identify reports that were published during the prior year.

**Seeking Computer-Mediated Support**

The implications of CMC for support seeking have been a major focus of discussion and study in scholarship on computer-mediated support. CMC has been touted by several scholars as a particularly valuable context for acquiring social support (Caplan & Turner, 2007; Tanis, 2008a; Turner, Grube, & Meyers, 2001; Walther & Boyd, 2002; Wright & Bell, 2003). CMC is proposed to facilitate the support-seeking process by creating conditions under which individuals feel comfortable requesting help and have greater access to able and willing support providers. In examining the use and effects of CMC for support seeking, we consider research related to four questions involving: who
seeks computer-mediated support, motivations for acquiring support online, the viability of computer-mediated support contexts, and factors influencing perceptions of computer-mediated support and providers. We synthesize existing research in an effort to evaluate claims about the utility of CMC in support acquisition.

Who Seeks Computer-Mediated Support?

As a foundation for evaluating the implications of CMC, it is worthwhile to first consider the prevalence and demographic characteristics of individuals who seek computer-mediated support. Use of CMC to acquire social support appears to be a fairly widespread phenomenon. Although the majority of research on this topic has tended to focus on support for physical and mental health issues, there is evidence that significant numbers of adult Americans have attempted to seek or share computer-mediated support. Research from the Pew Internet and American Life Project offers insights about the evolution of participation in computer-mediated support over the past 15 years. In 2001, 28 million adult Americans were estimated to have participated in an online support community dedicated to a medical condition or personal problem; as of 2004, the number increased to 36 million (Pew Internet and American Life Project, 2005).

A survey conducted by the organization during 2010 offered evidence that 18% of adult Internet users have gone online specifically to find others with similar health concerns (Fox, 2011). Estimates of support-related Internet use were more modest when framed in terms of the last time respondents had a health concern. Among adult Internet users, only 13% used the Internet to seek information, care, or support from friends and family and 5% contacted others with the same condition. A more recent survey conducted by researchers at the National Cancer Institute (2012) indicated that an estimated 7.5 million adult Americans visited a health-related online support community during 2012.

Despite the volume of people seeking computer-mediated support, relatively few nationally representative surveys have been conducted to explore the demographics of this group. One exception is a recent survey of individuals who sought peer support online specifically for mental health problems (DeAndrea, 2014; DeAndrea & Anthony, 2013). Online support seekers were more likely to be female, white, and college-educated (DeAndrea & Anthony, 2013). Yet, participation in online support communities was substantially lower than face-to-face support groups/communities (DeAndrea, 2014). Relative to face-to-face support seekers, individuals who participated in online support communities were more likely to be female, white, and have greater levels of perceived distress. There were no consistent differences based on education. Among a convenience sample of Japanese women coping with breast cancer, women with greater education, who were more recently diagnosed and had higher levels of depression and anxiety, were more likely to participate in online support communities than face-to-face support groups (Setoyama, Yamazaki, & Nakayama, 2011). Researchers have also examined demographic differences in the ways online support communities are used. One study of women coping with breast cancer showed that, in the context of an online support-based intervention, Whites were more likely to actively contribute to group discussions than lurk, whereas the reverse trend was observed for African Americans (Han et al., 2012). Lurkers (i.e., people who read discussions but do not actively contribute) were also older and less likely to live alone. There were no differences in use of the community based on education or cancer stage.

Finally, researchers have considered the role of personality in seeking computer-mediated support. Attraction to computer-mediated support has been found to be positively associated with neuroticism and negatively associated with agreeableness and conscientiousness (Giota & Kleifartr, 2014). Other researchers showed that personality domains interacted with specific types of Internet use to predict general perceptions of support availability (Swickert, Hittner, Harris, & Herring, 2002). Individuals who scored high on neuroticism and engaged in higher levels of Internet use for technical reasons (e.g., visiting bulletin boards, creating webpages) and information exchange (e.g., e-mail, information seeking) reported perceiving less support available than individuals who scored high in neuroticism but engaged in lower levels of these types of Internet use as well as individuals who scored lower on neuroticism. Among individuals who engaged in greater levels of leisure Internet use (e.g., using instant messaging, playing games), those high in agreeableness reported greater support available than individuals who scored low on agreeableness as well as individuals who engaged in low levels of leisure Internet use.

Why Do People Seek Computer-Mediated Support?

Beyond demographic differences in support seekers, a number of interperson al and situational factors have been argued to motivate individuals to seek computer-mediated support. The underlying rationale for many of these factors can be found in Turner and colleagues (Turner et al., 2001) adaptation of the optimal matching model (Cutrona, 1990). CMC is argued to create a context where individuals can acquire support that uniquely meets their needs and circumstances. We focus on those factors that have received the most attention in empirical research: limited access to support offline, stigma, accessibility, and interaction control. Across these factors, there is evidence to suggest the utility of CMC for meeting some of the unique needs of support seekers.

Limited Access to Support Offline

Online sources of social support have been argued to extend, and in some instances even replace, traditional offline support networks by overcoming some of the limitations of those networks (Tanis, 2008a; Wright & Bell, 2003). Online support is thought to be particularly attractive when one's traditional network lacks individuals who are willing and able to provide effective support. The results of research examining the status of one's offline support resources
as a predictor of using CMC to acquire support are mixed. Several studies offer evidence demonstrating the importance of offline resource deficits. Among members of online support communities, satisfaction with offline support resources was inversely associated with respondents’ preference for social interaction with online community members (Chung, 2013). In other research, the number of posts made to an online community (Kim et al., 2011) and time spent participating in a MMOG (Kaczmarek & Drzazkowski, 2014) were inversely associated with offline support availability. Support community members have also been found to be significantly more satisfied with their online support networks than their offline networks (Wright, 2000a).

The preceding findings can be contrasted with research reporting no connection between access to offline resources and use of computer-mediated support. In a study of MMOGs, no significant relationships were found between time spent playing and players’ perceptions of appraisal and belonging support available online (Longman, O’Connor, & Obst, 2009). Among online support community members, satisfaction with their face-to-face support networks was not significantly correlated with time spent online (Wright, 1999). Researchers have also reported findings wholly inconsistent with the notion that limited access to offline resources drives support-related CMC use. Family cohesion was positively associated with use of an online support community in one study (Yoo et al., 2014). In the context of SNSs, respondents’ satisfaction with their face-to-face support resources was positively associated with time spent using a SNS (Wright et al., 2013).

Perceived Stigma

Another variable that has been argued to be an important predictor of participating in computer-mediated support is the degree to which individuals feel stigmatized because of the issues they face. Stigma has been linked with a number of deleterious outcomes that can make it difficult to acquire social support (Rosman, 2004; Vanable, Carey, Blair, & Littlewood, 2006). Several scholars have argued that online support communities, in particular, may be valuable for individuals facing stigma as a means to gain access to weak ties (Tanis, 2008a; Wright & Bell, 2003; Wright & Rains, 2013). Although only a relatively small number of studies have examined this factor, researchers have reported tentative evidence that stigma may lead individuals to use CMC to acquire support.

Among a nationally representative sample of adults seeking assistance for mental health issues, respondents who were afraid others would find out about their condition and worried about being committed were significantly more likely to use online than face-to-face support communities (DeAndrea, 2014). However, there were no differences in seeking support online or offline based on respondents’ concerns about being viewed negatively by members of the community in which they live. Other research offers indirect evidence of the role stigma may play as a motivating factor in seeking computer-mediated support. One group of scholars found greater member participation in online communities dedicated to marginalized concealable identities than in online communities dedicated to marginalized conspicuous identities or mainstream identities (McKenna & Bargh, 1998). Surveys of online community members showed that perceived stigma was positively associated with the degree to which members valued the text-based and anonymous aspects of their community (Tanis, 2008b) as well as members’ preference for support from weak ties (Wright & Rains, 2013).

Accessibility

Computer-mediated support resources are unique from their face-to-face counterparts in that many forms are available all-day-everyday and do not require any travel. This increased accessibility offered by CMC has been highlighted as key factor encouraging its use (Tanis, 2008a; Walther & Boyd, 2002; Wright & Bell, 2003). There is some empirical evidence that accessibility is a reason individuals use CMC to acquire support. The accessibility of online communities has been found to be an important benefit in several qualitative studies (Colvin, Chenoeth, Bold, & Harding, 2004; Malik & Coulsdon, 2008; Yli-Uotila, Rantanen, & Suominen, 2014). In interviews with members of health-related Second Life support groups, for example, convenience was identified as a motivation for participation (Green-Hamal, Eichorn, & Sherblom, 2011). Accessibility also emerged in surveys of online support community members (Walther & Boyd, 2002). One survey showed that mobility restriction among members was positively associated with the importance of text-based interaction and perceptions that community participation could help extend respondents’ social network (Tanis, 2008b). Yet, a lack of time or physical accessibility did not differentiate users of online and face-to-face support communities dedicated to mental health (DeAndrea, 2014).

Interaction Control

Because interactions in computer-mediated environments are typically text-based, they are marked by the reduction in nonverbal cues that accompany face-to-face interaction and the potential for asynchronous exchanges. These two factors have been argued to be particularly beneficial in supportive interaction (Caplan & Turner, 2007; Tanis, 2008a; Walther & Boyd, 2002; Wright & Bell, 2003). More attention can be given to message construction as support seekers and providers have additional time to carefully craft their messages, and not having to see one’s interaction partner may make individuals feel more comfortable sharing their experiences. Although the role of interaction control has received very little attention in empirical studies, there is evidence to tentatively suggest its promise as a predictor of seeking computer-mediated support. Among support community members, interaction management was one reason for their participation (Walther & Boyd, 2002). In another study, perceptions of the utility of text-based interaction were positively associated with the degree to which respondents used the community to help cope with
their health condition (Tanis, 2008b). Researchers have also shown that perceptions of the interpersonal costs of seeking support from friends was inversely associated with support seeking face-to-face, but unrelated to the use of e-mail (Lim, Thompson, & Zhao, 2013).

Are Computer-Mediated Contexts Viable Resources for Support?

Given the volume of people venturing online and various motivations for seeking computer-mediated support, a relevant question involves whether it is possible to acquire meaningful levels of social support in these contexts. Claims about the potential of CMC for acquiring social support are typically grounded in broader ideas about the implications of CMC for interpersonal interaction. Whereas the cues-filtered-out perspective (Culnan & Markus, 1987) assumes that the reduced social cues (e.g., eye contact, facial expressions) create challenges for interpersonal interaction, the hyperpersonal communication model (Walther, 1996) suggests that CMC may lead to more personal interaction than occurs face-to-face. These two perspectives are reflected in claims that CMC may be a particularly effective (Robinson & Turner, 2003; Turner et al., 2001; Wright & Bell, 2003) or ineffective (Lewandowski, Rosenberg, Parks, & Siegel, 2011) context for acquiring social support. Overall, the evidence from extant research tends to offer more support for the former claim and suggests that CMC can serve as meaningful resources for social support.

A few studies have shown that Internet use, in general, may have support-related benefits. A Pew Internet and American Life Project survey conducted during 2010 showed that Internet users perceived significantly greater levels of support availability than did non-users—including greater availability of emotional, tangible, and companionship support (Hampton, Goulet, Rainie, & Purcell, 2011). A study of undergraduate students had commensurate findings (Liu & LaRose, 2008). The authors reported a positive association between perceived support available online and amount of time spent using the Internet. These findings can be contrasted with the results from a survey of women coping with infertility in which respondents reported desiring significantly more support than they received from online sources (High & Steuber, 2014). However, desiring more support than one received was not unique to online sources and extended to spouses and medical professionals as support resources.

Several groups of researchers have investigated the relationship between participation in online communities and social support. Time spent using online communities is associated with user size and satisfaction with their online support network (Wright, 2000b) as well as users' perceptions of informational and emotional support received in HIV/AIDS (Mo & Coulson, 2012) and weight-loss (Hwang et al., 2011) communities. Use of a Swedish online parenting community and regular contact with other members were positively associated with perceived support available from community members (Sarkadi & Bremberg, 2005). Yet, not all research has documented support-related benefits of online community participation. In one study of support community members, the relationship between respondents' amount of support-related Internet use and perceived support availability was not statistically significant (Eastin & LaRose, 2005). The size of respondents' online networks, however, was associated with their perceptions of support availability. Other research that provides evidence regarding the way in which these communities are used is important to consider. In the context of an online support intervention for women with breast cancer, lurkers—people who follow community discussions but do not actively make contributions—reported having significantly greater levels of social support available than participants who actively contributed to the discussions (Han et al., 2012).

Beyond online communities, researchers have documented the potential support-related benefits of using SNSs, blogs, MMOGs, and even instant messaging. A Pew Internet and American Life Project survey showed that individuals who used the SNS brand Facebook or authored a blog reported significantly greater levels of support availability compared with individuals who did not engage in those activities (Hampton et al., 2011). Other researchers have reported positive associations between SNS use by Taiwanese undergraduate students and perceived support available on the SNS (Liu & Yu, 2013) as well as the number of posts made by health bloggers over a six-week period and bloggers' perceptions of support available from their readers (Rains & Keating, 2011). Yet a study of new mothers resulted in more conflicting evidence (McDaniel, Coyne, & Holmes, 2012). Blogging frequency was associated with mothers' perceived support overall, and this relationship was mediated by perceived connections to extended friends and family. SNS use, however, was not associated with either variable. Research examining MMOGs has considered the implications of game participation for social support from gamers' in-game connections. In two studies, time spent playing MMOGs was positively associated with gamers' general perceptions of support available from other players (Kaczmarek & Drakowska, 2014) as well as the availability of appraisal and belonging support (Longman et al., 2009). Finally, researchers examining instant messaging use among undergraduate students showed that time spent using instant messaging was associated with the amount of social support received by students during the previous month (Lin & Bhattacharjee, 2009).

What Factors Influence Perceptions of Computer-Mediated Support Quality?

Although the previously reviewed research offers evidence that various computer-mediated contexts can serve as valuable support resources, there is reason to believe that the quality of support received or available in these contexts is not uniform. Scholars have discussed several factors that may serve to influence perceptions of online support and support providers (Caplan & Turner, 2007; High & Solomon, 2011; Tanis, 2008a; Wright & Bell, 2003). We consider three factors that have received the most attention in research on computer-mediated support: the role of channel characteristics and contextual...
factors, perceived similarity, and perceived credibility. There is evidence that each factor can play a role in perceptions of social support in CMC.

**Channel Characteristics and Contextual Factors**

Despite significant discussion about the unique opportunities CMC offers for acquiring social support (Caplan & Turner, 2007; Tanis, 2008a; Wright & Bell, 2003), researchers have only recently begun to test its implications for perceptions of support messages and providers. Those studies that have been conducted, however, offer several important insights. Much of this work has focused on examining the implications of contextual features in computer-mediated supportive interactions occurring in online communities.

Research has been conducted to investigate the effects of a support seeker or provider’s identity via their screen name and/or avatar picture. Relative to when support seekers had no picture and a non-name screen name (e.g., jmk76), participants wrote more person-centered and polite support responses when the support seeker included a picture and first name (e.g., Jamie) in their screen name (Feng, Li, & Li, 2013). Perceived social presence partially mediated the effect of identity information on person-centeredness but not politeness. In another study, participants were asked to judge a hypothetical supportive interaction in a support community in which the sex of the support provider (as indicated by a screen name) and person-centeredness of the support message were manipulated (Spottswood, Walther, Holmstrom, & Ellison, 2011). In the high person-centeredness support condition, male participants reported greater liking and perceived the support provider to be more effective when the provider had a male name than a female or ambiguous sex name. However, female participants liked and found more effective support providers who gave high person-centered support than low person-centered support, regardless of their apparent sex.

Research has also been conducted to examine how, in contexts like online support communities and SNSs, the nature of others’ feedback to a support seeker impacts the quality of support messages produced by support providers. Researchers manipulated others’ comments in an experimental study and found that, compared to when others’ responses to the support seeker were unsupportive, participants who viewed supportive replies produced more effective action-focused and emotion-focused support messages (Li & Feng, 2014). A related study focusing specifically on SNSs examined the impact of the number of different features used to convey affect (High, Oeldorf-Hirsch, & Bellur, 2014). Participants who were exposed to a hypothetical SNS page in which emotional distress was communicated using a status message, the relationship feature, and profile picture were less willing to provide emotional and network support to the distressed person than when only one feature was used to convey distress.

Although CMC is argued to restrict some nonverbal information, scholars have investigated the support-related implications of those nonverbal cues that persist. There is evidence that chronemic cues may be important (Ledbetter, 2009). In the context of supportive e-mail exchanges, the time delay between a support request and response influenced participants’ perceptions of the provider and message. When the reply delay was shorter (i.e., one-hour delay vs. one-month delay), the support provider was rated as more immediate, similar, and receptive. In a second study, female participants rated the support provided as being of higher quality in the short delay condition (Ledbetter, 2009). Other cues, however, have been shown to be inconsequential. Cross-sectional and experimental studies showed that the presence of emotional cues in support messages received via e-mail did not impact the receivers’ support satisfaction (Ledbetter & Larson, 2008). Beyond individual cues, language style matching—invoking the degree to which speakers mimic one another’s use of function words—has been shown to predict bloggers’ perceptions of emotional support availability (Rainis, 2015). Increased language style matching between health bloggers and their readers (via their comments) over a three-month period was positively associated bloggers’ perceptions of emotional support available from readers.

Relatively little experimental research has been conducted to isolate the unique effects of CMC by comparing it with face-to-face supportive interactions. In one study, 24 undergraduate students completed a counseling session about anxiety conducted by a graduate student in counseling psychology either face-to-face or via instant messaging (Cohen & Kerr, 1999). Although there were no differences between the two conditions in perceptions of the counselor, nor the depth, smoothness, or positivity of the interaction, participants in the instant messaging condition reported lower arousal during the interaction. In a more recent study, dyads discussed a stressor either via instant messaging or face-to-face and one participant provided high, medium, or low levels of person-centered support (High & Solomon, 2014). Support providers in the face-to-face condition reported feeling significantly more self-presentational confidence than providers in the instant messaging condition. However, there were no differences in participants’ perceptions of the ease of support message production. There were interaction effects involving participants’ sex, message characteristics, and the communication medium for receivers’ evaluations of the support messages. Whereas male and female receivers rated the high person-centered support they received from males as more sensitive in the instant messaging condition than face-to-face, low person-centered messages in female-female dyads were rated as being more sensitive face-to-face than in instant messaging. Women also rated the low person-centered support they received from other women in the instant messaging condition to be of lower quality than in the face-to-face condition.

**Perceived Similarity**

Another factor that has been argued to play a role in perceptions of support messages and providers in computer-mediated contexts is interactants’ similarity with one another (Tanis, 2008a; Wright & Bell, 2003). Similarity
in experiences with a stressor, as well as with the attributes of others, may encourage empathy and a sense of belonging. The results from several studies underscore the importance of similarity. Connecting with others who share similar experiences was a key motivation for participating in online support communities reported in several qualitative studies examining health-related communities (Haberstroh & Moyer, 2012; Holbrey & Coulson, 2013; Malik & Coulson, 2008; Yli-Uotila et al., 2014) as well as among caregivers (Colvin et al., 2004). In one experimental study, examining advice provided in the context of an online support community, perceived similarity of other community members influenced participants' perceptions of their credibility and, in turn, evaluations of the health information they provided (Wang, Wilter, Pingree, & Hawkins, 2008). Two other cross-sectional studies offer evidence that perceived similarity of support community members was positively associated with perceived support available from the community (Campbell & Wright, 2002; Nambisan, 2011). Similarity of others has also been listed as a key advantage of participating in an online support community (Wright, 2002). Among SNS users, perceived attitudinal and background similarity with respondents’ connections on the network were positively associated with evaluations of emotional support available from this group (Wright, 2012).

**Perceived Credibility**

A final factor that has been argued to influence perceptions of computer-mediated support providers and messages is credibility (Wright & Bell, 2003). The degree to which a support provider is knowledgeable and trustworthy could have substantial implications for perceptions of his or her advice and feedback. Although relatively little research has examined credibility, the studies that exist offer evidence of its importance. In experimental research, the credibility of support community members was found to be associated with participants’ evaluations of the health information they received and, in turn, their intentions to act on that information (Wang et al., 2008). Survey research also offers evidence of the importance of credibility. Researchers conducting surveys of online support community members showed that two dimensions of source credibility—perceived competence and character—were associated with the size of and members’ satisfaction with their online support network (Wright, 2000b) and their perceptions of emotional support available from other community members (Campbell & Wright, 2002). In the context of health blogs, the perceived credibility of blogs was a significant predictor of the degree to which they were used by cancer patients and their companions for problem solving as well as prevention and care (Chung & Kim, 2008). Other research offers indirect evidence of the importance of credibility. Researchers conducting a content-analysis of inaccurate information posted to an online support community showed that, although such information was relatively rare, it was typically identified by other members as inaccurate and updated or corrected (Esquivel, Meric-Bernstam, & Bernstam, 2006). The results of interviews with SNS users suggest that the authenticity of support attempts in response to messages broadcast by users about their significant life events may be questioned (Vitak & Ellison, 2012).

**Conclusions about Research Examining CMC for Seeking Support**

Research investigating support seeking and CMC tends to be founded on the notion that CMC creates beneficial conditions for seeking and acquiring support. In addition to providing access to willing and able support providers, several structural characteristics of CMC serve to make individuals comfortable seeking support. The extant body of research examining support seeking provides some general support for these ideas. The conclusion that can be most confidently drawn from this body of research is that a variety of different forms of CMC can serve as viable resources for social support. In addition to online support communities, blogs, SNSs, and even MMOGs have all been documented to serve as support resources. Although the total number of studies examining many of the specific topics was small, there was also evidence to suggest stigma, accessibility, and interaction control were important factors in support seeking behavior. Additionally, contextual factors, credibility, and similarity appear to be factors that influence perceptions of the support available or provided in CMC. Yet, there are areas in which extant research was less consistent. Research examining the influence of one’s offline support resources on support seeking behavior was largely mixed. Additionally, little is known about the demographics of support seekers. The only nationally representative research conducted to date that explored demographic factors was limited to mental health issues.

Scholarship examining the use of CMC for seeking support offers broader insights about social support processes. The noteworthy number of adults who seek support online—and the diversity of computer-mediated contexts in which it may be acquired—serves as compelling evidence of the important role that social support plays as a coping resource. The results from this body of research also demonstrate the notion that support seeking is a complex phenomenon. That stigma and interaction control were factors motivating the use of CMC highlights the challenges of seeking support. Attempting to acquire support is a more complex phenomenon than simply asking for assistance and several interpersonal and situational factors may encourage or discourage such efforts. The range of variables influencing support perceptions further highlights the nuanced nature of supportive communication. In addition to the content of the support messages shared, contextual factors and provider characteristics are important factors that may shape perceptions and outcomes of supportive interactions. Taken as a whole, research examining the role of CMC in seeking and acquiring social support underscores the importance and complexity of social support as a coping resource.
Outcomes of Computer-Mediated Support

The potential outcomes of acquiring social support online have received increased attention in recent years as scholars have worked to better understand if and how support acquired or available in computer-mediated contexts has salutary effects. Much of this research is grounded in two general models about the effects of social support (for a review, see Cohen & Wills, 1985; Lakey & Cohen, 2000). One way in which support can have positive effects is by directly improving one’s coping resources. Receiving advice or empathy, for example, can help a support seeker better manage a stressor. A second model focuses on perceived support availability. The knowledge that one has potential support providers available in computer-mediated contexts impacts support outcomes by influencing one’s appraisal of a stressor. Perceiving that one could, if necessary, gain access to supportive others in online discussion communities, blogs, or SNSs may make stressors appear less severe and more manageable than if such resources were not available. There is evidence that both perceiving support to be available and receiving support in CMC is consequential for well-being.

Is Participating in an Online Support Community Beneficial?

Research examining the outcomes of support acquired in computer-mediated contexts has tended to focus on demonstrating positive outcomes among individuals participating in online support communities. Participation in support-focused CMC communities is considered a proxy for both perceiving available and receiving social support from community members. At the most general level, several studies offer evidence that simply participating in a support community can be beneficial. The results of panel studies have shown increased post-traumatic growth over six months among members of a breast cancer support community with Stage I and II cancer (Lieberman & Goldstein, 2006) as well as decreased rates of depression over the course of a year among depression community members (Houston, Cooper, & Ford, 2002). Use of health-related online support communities has also been linked with several “empowering processes” (Mo & Coulson, 2012, p. 446; Mo & Coulson, 2013). These processes, such as finding meaning and receiving information and support, are associated with positive outcomes such as self-efficacy and optimism (Mo & Coulson, 2012, 2013). Other research has considered outcomes related to members’ perceived benefits or satisfaction with their community. In two studies, support community satisfaction was inversely associated with perceived stress (Wright, 2000a) and the perceived benefits of online support were positively associated with members’ perceived coping ability (Seckin, 2013). Yet, a few researchers have reported potentially negative outcomes of participation. For example, among individuals with visual impairment, negative associations were found between online support community participation and self-reports of physical well-being (Smedema & McKenzie, 2010). Some inconsistencies in existing research might be accounted for by the way in which participation was evaluated. A survey of support community members in the Netherlands showed positive associations between the number of visits members made per week and social coping involving feelings of social connection, but a negative association between social coping and the total number of weeks members participated in the community (Tanis, 2008b).

The preceding findings are generally consistent with the results of qualitative research examining the experiences of support community members. Connecting with other members can be critical for mitigating isolation (Holbrey & Coulson, 2013), lessening the burden placed on offline support resources (Malik & Coulson, 2008), and acquiring novel information (Colvin et al., 2004; Yli-Uotila et al., 2014). Members of one online community reported that their experiences led them to feel greater efficacy when interacting with their health care provider (Holbrey & Coulson, 2013). Yet, there are also several significant limitations of support community participation. The most common involves stress resulting from hearing about difficulties experienced by other community members (Holbrey & Coulson, 2013; Malik & Coulson, 2008). Other drawbacks include social comparisons with others who are improving (Malik & Coulson, 2008), becoming overly focused on one’s illness (Holbrey & Coulson, 2013), the inability to receive immediate feedback (Haberstroh & Moyer, 2012), the lack of physical and social cues (Colvin et al., 2004), and receiving limited or negative feedback (Yli-Uotila et al., 2014).

The way in which online communities are used—in the form of active participation versus lurking—also appears to be consequential. One survey of HIV/AIDS community members showed a number of differences between lurkers and posters related to support outcomes (Mo & Coulson, 2010). Relative to lurkers, members who actively contributed were significantly more likely to report that they received social support and useful information from the community and were more likely to report being satisfied with other members. Other researchers have shown that active participants feel greater identification with their community and greater self-acceptance as a result of participating relative to lurkers (McKenna & Bargh, 1998). In a study of mental-health communities, active participants fared better in terms of stigma recovery than lurkers (Lawlor & Kirakowski, 2014). Yet, the authors also found that the frequency with which all respondents visited the community was inversely associated with stigma recovery. These findings can be contrasted with the results from an analysis of participation patterns in a computer-mediated support intervention (Han, Hou, Kim, & Gustafson, 2014). Although there were no differences after six weeks, lurkers were less depressed and reported marginally greater increases in functional well-being and social support at the three month follow-up than did individuals who actively participated in group discussions.

Finally, individual difference factors may impact the outcomes of participating in an online support community. Preference for weak-tie support is one such factor (Wright & Miller, 2010). This notion is drawn from Granovetter’s (1973) ideas about weak ties but adapted to the context of social support.
Weak ties are argued to be valuable because they can offer access to novel information, less potential for role conflict, and represent less risky disclosure targets. Weak-tie support preference is an individual difference factor involving the degree to which individuals favor support from weak ties (Wright & Miller, 2010). Among members of health-related online support communities, weak-tie preference has been shown to be inversely related to perceived stress (Wright, Rains, & Banas, 2010) and anxiety (Wright & Miller, 2010) and positively associated with self-efficacy (Wright & Miller, 2010) and perceptions of the credibility of one's online support community (Wright & Rains, 2014). In another study examining online support community members, a significant interaction was found between weak-tie support preference and perceived stigma for depression and stress (Wright & Rains, 2013). The associations between stigma and both outcomes were weaker among respondents with a relatively greater preference for weak-tie support. The authors argue that, because participants who prefer weak-tie support are gaining access to this resource, the effects of stigma are less deleterious among this group.

Is Computer-Mediated Support Associated with Positive Outcomes?

Beyond the general benefits of participating in online communities, research has documented positive outcomes associated with support received or perceived from using specific forms of CMC. One experimental study showed that simply knowing that supportive others are available in computer-mediated contexts can be consequential (Feng & Hyun, 2012). Participants were assigned to read a hypothetical scenario in which they experienced a stressful event, logged into their instant messaging program, and then noticed that different groups of contacts were on or offline. Compared to participants who thought a target friend was offline, participants who perceived their target friend to be online reported higher levels of self-efficacy and lower stress.

Scholars conducting cross-sectional studies have also reported positive associations between well-being and support received or perceived from using online communities (Mo & Coulson, 2012; 2013; Oh & Lee, 2012), SNSs (Liu & Yu, 2013; Oh, Ozkaya, & LaRose, 2014; Wright et al., 2013), blogs (Ko & Kuo, 2009; Rains & Keating, 2011), microblogs (Liang, Ho, Li, & Turban, 2011), and MMOGs (Kaczmarek & Drazkowski, 2014; Longman et al., 2009). Most of these studies focused on perceived support availability. For example, in one study of online diabetes support communities, support perceived available from community members was positively associated with members’ perceptions of health-related empowerment and, ultimately, their intention to actively communicate with their doctor (Oh & Lee, 2012). Among samples of student (Ko & Kuo, 2009) and health (Rains & Keating, 2011) bloggers, perceived support available from readers has been linked with various dimensions of well-being. The benefits of social support availability even extend to microbloggers’ intentions to share and use consumer information from other microbloggers (Liang et al., 2011) and MMOG players’ well-being (Kaczmarek & Drazkowski, 2014). The results from the few studies that have generally examined received support in CMC are more mixed. Although one group of researchers showed that supportive interactions on a SNS over the course of a five-day period predicted respondents’ positive affect and, in turn, their life satisfaction (Oh et al., 2014), another scholar found that support received on a SNS was unrelated to life satisfaction (Kim, 2014).

Researchers have also examined the outcomes of receiving or perceiving available specific types of support. Receiving emotional support has been shown to have salutary effects in several studies (Kim et al., 2012; Oh, Lauckner, Bochner, Fewins-Bliss, & Li, 2013; Turner et al., 2013; Yoo et al., 2014). Researchers, for example, examined the effects of emotional support messages communicated via e-mail during a health intervention for patients diagnosed with diabetes (Turner et al., 2013). They found that the proportion of providers’ e-mails to patients that contained emotional support messages was associated with improved glycemic control among patients over the course of the intervention. Two studies examining a computer-mediated intervention for women with breast cancer showed that receiving emotional support message was associated with lower breast cancer concerns (Kim et al., 2012; Yoo et al., 2014). In one of the studies, however, this association was limited to women with moderate and high levels of emotional communication competence (Yoo et al., 2014). Perceived emotional support also appears to be beneficial. Among student SNS users, perceived emotional support available from one’s SNS network was positively associated with health self-efficacy (Oh et al., 2013) and negatively associated with perceived stress (Wright, 2012). Researchers have considered a few other types of support with mixed results. Perceptions of appraisal support available from other MMOG members was inversely associated with psychological well-being, but the association between perceived belonging support and gamers’ well-being was not statistically significant (Longman et al., 2009).

In addition to perceived and received support, there is evidence that the size of an individual’s online social network is consequential. The number of connections one has in an SNS network (e.g., total “friends” on the popular SNS, Facebook) has been shown to be positively associated with well-being (Nabi, Prestin, & So, 2103). There is also evidence to suggest that expressing support has important potential outcomes. Three studies have been conducted to examine emotional support provision in the context of a computer-mediated support intervention among women coping with breast cancer. An examination of the messages constructed by participants showed that women who received emotional support messages were more likely to give emotional support to others (Kim et al., 2012). Emotional support expression was positively associated with positive reframing (Kim et al., 2011, 2012) and inversely associated with self-blame (Kim et al., 2011), but not associated with breast-cancer related concerns nor emotional well-being (Kim et al. 2012). The results from another intervention study indicated that, among individuals with higher levels of emotional
competence, expressing emotional support was positively related to perceived quality of life (Yoo et al., 2014). However, emotional support expression and competence were not associated with participants' breast cancer concerns.

Relatively little research has been conducted to evaluate the consequences of computer mediation for support outcomes. In one experiment, participants engaged in a supportive interaction either face-to-face or via instant messaging (High & Solomon, 2014). Two weeks after the interaction, participants were asked to evaluate their perceptions of the stressor they had discussed. The results offered some evidence that support received in the instant messaging condition was less effective than in the face-to-face condition. Among female participants who received low person-centered support, those in the instant messaging condition reported less improvement in their situation than did women who received support face-to-face. These findings are commensurate with the results from a cross-sectional study (Lewandowski et al., 2011). Current and former military personnel were asked to estimate the level of disruption caused by a significant negative life event at the time of the event and at present along with the communication medium they primarily used to acquire support regarding the event. The reduction in disruption from the time of the event to the present was significantly greater among respondents who received support face-to-face than those who used a form of CMC. Put differently, participants who received support primarily via CMC did not report as much improvement as those who primarily received support face-to-face. Other researchers have found no differences between face-to-face and instant messaging in support outcomes. After completing a counseling session about anxiety, there was no difference in state anxiety change between participants in the instant messaging and face-to-face conditions (Cohen & Kerr, 1999).

Conclusions about Computer-Mediated Support Outcomes

Several conclusions can be drawn from research examining the outcomes of computer-mediated support. Perhaps most noteworthy, support available and received in computer-mediated contexts is generally associated with positive outcomes related to well-being. The results of research examining participation in online communities suggest a range of support-related benefits of participation as well as some potential limitations. Beyond online communities, there is a fair amount of evidence consistent with the notion that various forms of CMC can serve as valuable support resources. In cross-sectional research examining online support communities, blogs, microblogs, and MMOGs, positive associations have been found between perceived support available in these contexts and well-being. Received support—specifically, receiving emotional support—has also been connected with several outcomes linked with well-being. Yet, there is reason to question the role that CMC plays during supportive interactions. Although research explicitly comparing face-to-face and CMC are rare, those few studies that exist suggest that computer-mediated support may be no better—or even suboptimal—relative to commensurate face-to-face interaction.

Research examining the outcomes of computer-mediated support offers several insights about social support processes more broadly. The associations between well-being and both support availability and received support are a testament to the importance of social support as a coping resource. The variety of computer-mediated contexts in which support was shown to play an important role underscores the value and utility of this social resource. These various contexts also highlight the notion that supportive communication does not and need not occur solely in face-to-face interactions. Although non-verbal cues certainly can play an important role in communicating social support, the results from research on received emotional support in particular offers evidence that their presence is not a scope condition for effective comforting communication. Finally, research demonstrating the potential benefits of serving as a support provider suggests the importance of thinking more broadly about the settings in which support processes occur. Support seekers may also play the role of providers and interact with other seeker-providers—and such varying and multiplex roles may have important implications for supportive interactions.

Computer-Mediated Support in Special Contexts

Claims about the potential advantages and disadvantages of computer-mediated support extend to unique support contexts. Research has accumulated exploring the role of computer-mediated support among older adults, individuals adapting to a new culture, and in educational settings. Much of this work is grounded in the idea that computer-mediated support offers novel opportunities for coping with the variety of novel challenges that define each context. Scholarship examining computer-mediated support in each context is considered in the following paragraphs. Across all three contexts, there is evidence to suggest the utility of CMC as a resource for social support.

Older Adults

As the number of older adults in the United States continues to increase, CMC has been argued to create valuable opportunities for acquiring and sharing support among this group (Robinson & Turner, 2003; Wright, 2000c). Much of the extant research tends to focus on documenting the potential of CMC. There is some evidence to suggest that older adults' Internet use is generally associated with support perceptions. One group of scholars trained older adults to use the Internet over a four-month period and found that total time spent online was positively associated with participants' support perceptions (Cody, Dunn, Hoppin, & Wendt, 1999). However, this association did not extend to time spent using specific programs that foster interpersonal interaction such as chat and e-mail. Other researchers have reported more promising results regarding specific types of Internet use. Perceptions of support availability have been shown to be associated with older adults' frequency of Internet use for information, communication, and entertainment (Erikson & Johnson, 2011). In another study, social Internet use, defined as using instant messaging and
discussion communities, was associated with positive health outcomes (Noel & Epstein, 2003). Respondents who engaged in greater amounts of social Internet use reported fewer health limits and better physical and mental health than those who engaged in smaller amounts of social Internet use. Among a sample of older adults residing in a retirement community, use of e-mail to communicate with adult children and friends was associated with perceptions that these two groups were available resources of advice and emotional support (Waldron, Gitelson, & Kelly, 2005). Notably, the results did not extend to perceptions of tangible or illness support availability. The findings from qualitative research further demonstrate the implications of different forms of CMC for social support. Interviews with a sample of older adults in China who used a particular website showed that the website’s online community was used for acquiring informational support, whereas the instant messaging application was used for emotional support (Xie, 2008).

Several studies have been conducted to explore older adults’ experiences in online support communities. A consistent finding is that such communities can be a valuable support resource for this group (Kanayama, 2003; Pfeil, Zaphiris, & Wilson, 2009; Wright, 2000c). Online support communities appear to serve several functions. An analysis of SeniorNet conversations revealed three discussion themes involving promoting community support, sharing life events, and offering advice disguised as self-disclosure (Wright, 2000d). Open-ended survey responses from SeniorNet members further suggested that the community served a wide range of support-related purposes from offering a little advice and emotional involvement to serving as a “surrogate family” (Wright, 2000d, p. 38). SeniorNet was particularly valuable for older adults to discuss their family with non-family members and as an avenue to work through difficulties by considering possible solutions. These results are consistent with more recent interview research in which older adults reported that online communities were seen as a useful resource for connection and comforting as well as for candid feedback (Pfeil et al., 2009). The potential to gain access to a large number of similar others was also identified as an important benefit. Yet, limitations of these communities and computer-mediated support more generally have also been reported. Interview respondents in one study indicated that the relative lack of nonverbal cues fostered misunderstandings and made them wary of information quality (Pfeil et al., 2009).

Cultural Adaptation

Research has been conducted with the aim of exploring the implications of computer-mediated support among individuals adapting to a new culture. CMC is argued to make it possible to maintain connections with one’s established ties and, as a result, help buffer the stressors associated with adapting to new settings (Mikal, Rice, Abeyta, & DeVilbiss, 2013). A few studies have examined the use and relative importance of CMC for maintaining connections with one’s home country. Interview and cross-sectional studies have shown that various forms of CMC are important, but less so than the telephone (Kim & McKay-Semmler, 2013; Kline & Liu, 2005). In one study, the number of minutes international students spent per week in contact with family members from their home country via phone was positively associated with self-reported stress (Kline & Liu, 2005). However, the association between e-mail contact and stress was not statistically significant. Among sojourners participating in a study abroad program, technologies such as e-mail, SNSs, and the telephone were important in maintaining existing supportive relationships and allowing them to feel that support resources were available (Mikal & Grace, 2012). Other research offers evidence of the difficulties associated with being unable to maintain existing offline connections. A qualitative study of Asian international students living in South Korea showed that some students experienced a reduction in their social networks due to underdeveloped technology infrastructure in their home country (Kim, Yun, & Yoo, 2009). The inaccessibility of CMC made it difficult for students to maintain the level of connection they desired with friends and family in their home country.

Researchers have also considered the implications of different types of support and support messages. In a study of Chinese international students, support-related relational messages were common in the e-mail and telephone exchanges between students and their families (Kline & Liu, 2005). Both e-mail and telephone were used for messages reflecting encouragement, caring, reassurance, and advice. Research examining Chinese nationals who had immigrated to Singapore showed that almost all of the migrants who had Internet access sought some form of support, with informational and tangible support being the most common (Chen & Choi, 2011). Immigrants who had been in their host country longer were less likely to seek emotional, tangible, and companionship support but not informational support. Seeking most types of support was inversely related to support available in immigrants’ offline relationships. In other research, international students living in South Korea reported using SNSs like Cyworld for seeking informational support (Kim et al., 2009).

A fair amount of evidence exists to suggest that computer-mediated support can aid in cultural adaptation. A study of international students showed that CMC use for contacting members of their home country was positively associated with perceived support available from individuals in their home country and, in turn, psychological adaptation to living in the United States (Cemalciar, Falbo, & Stapleton, 2005). Other researchers have found positive associations between international students’ use of the Internet for support-seeking purposes and their fear of victimization and perceived discrimination (Ye, 2005). Particular types of support also appear to have important implications for cultural adaptation. One cross-sectional study of immigrants found that respondents’ overall levels of perceived support availability as well as specific support types (e.g., informational, emotional) were generally associated with socio-cultural, social, physical, and psychological adaptation (Chen & Choi, 2011). Among Chinese international students, another scholar found that informational and

- Computer-Mediated Communication 195
- COMMUNICATION YEARBOOK 40
emotional support available from online ethic support groups was inversely associated with several dimensions of acculturative stress (Ye, 2006).

**Education**

The implications of computer-mediated support have also been considered in educational settings. Social support can be important in coping with the stressors that accompany formal education (Haythornthwaite, Kazmier, Robins, & Shoemaker, 2000). Much of this research involves distance learning in which students interact with one another and their instructors using various forms of CMC. Several studies have documented the benefits of computer-mediated support in such settings. Interviews with students participating in a distance-learning course showed that the support they received from other students was critical to their success (Haythornthwaite et al., 2000). The bonds students formed with one another and the exchange of informational support allowed them to feel greater efficacy about completing the class. Students who failed to make such connections reported a sense of isolation that furthered their existing anxieties about the course. A study of students in a teacher-education program had similar findings (Anderson, 2004). Support from others in the course was essential to overcome isolation and extended beyond class assignments to stressful life events experienced by class members. Students exchanged support on the shared message board for the course as well as by private e-mail.

Researchers have also examined the support-related content of messages exchanged in distance learning courses. In an analysis of two such courses, one-fifth of all messages included social support (Kucuk, Genc-Kumtepe, & Tasci, 2010). Support was conceptualized as messages intended to benefit social interaction such as expressing thanks or offering assistance. In other research examining students’ technology use to communicate with one another outside of their online class, almost half of the respondents gave or received emotional support (Kears & Frey, 2010). Social network analysis has been used to examine support message content. One such study found changes in advice networks over time as interaction tended to converge around designated teams within a distance-learning class (Haythornthwaite, 2001). Emotional support networks, by contrast, did not conform to team structures and were less stable than other networks. The individuals who contributed to emotional support over the semester changed. Face-to-face contact appeared to serve as a catalyst for computer-mediated emotional support at later time points. Other research has examined differences in support content based on the nature of the communication medium. Relative to information exchange, one study found that informational and emotional support messages were more common when students used synchronous forms of CMC than asynchronous forms (Hrasinski, 2008).

**Special Contexts: Conclusions and Recommendations**

Several trends are evident across research examining the implications of computer-mediated support among older adults, in cultural adaptation, and in distance education. Much of this work is rooted in the idea that CMC offers unique opportunities for exchanging social support. Across the three contexts, there is evidence to demonstrate the utility of CMC. The use of various forms of CMC was associated with support perceptions across all three contexts—although the findings related to individual technologies were more mixed. There is also evidence that support acquired in computer-mediated contexts is beneficial. Informational and emotional support, in particular, appears to play a significant role. More generally, the research on older adults and among individuals adapting to a new culture suggests the importance of CMC in overcoming distance and maintaining existing offline relationships with friends and family.

Research examining the support-related implications of CMC in specialized contexts offers several broader insights about social support processes. The results across these three contexts underscore the importance of strong-tie relationships with friends and family members as an indispensable resource for support. CMC proved critical for allowing access to one’s existing strong-tie relationships and facilitating adaption to a new culture. Yet, this body of research also highlights the importance of CMC for connecting with weak ties. Online community members served as critical support resources among older adults as did classmates in online educational settings. Taken as a whole, the body of research examining computer-mediated support among older adults, in cultural adaptation, and in educational settings underscores that importance of considering the nature of the seeker and provider’s relationship in understanding social support processes.

**Agenda for Future Research**

Research conducted to date on computer-mediated support offers valuable insights about factors that lead individuals to seek support online as well as the potential for achieving beneficial outcomes. In an effort to build from these findings, we propose an agenda for future scholarship. We highlight several issues that we believe will, if addressed, foster a more complete understanding of the uses and effects of computer-mediated support.

**Better Understanding the Role of Computer-Mediation**

One valuable avenue for future scholarship is to explore the implications of computer-mediation for computer-mediated support processes. Although a number of studies have demonstrated potential benefits of computer-mediated support, the implications of CMC have not been fully considered. Indeed, the various forms of CMC are typically studied as a constant in cross-sectional or longitudinal research. Such approaches make it difficult to isolate the implications stemming from the unique characteristics of computer-mediated interaction. Four aspects that transcend specific forms of CMC warrant consideration: synchronicity, availability of social cues, publicness, and network potential. Understanding the ways in which these characteristics
are appropriated by users and with what effects would substantially help advance research on computer-mediated support.

**Synchronicity**

Computer-mediated support technologies vary in the degree to which they make possible synchronous interaction. Online discussion communities, for example, are typically asynchronous in that there can be a delay between constructing and sending a message. Instant messaging, in contrast, is more synchronous. The implications of (a)synchronicity for the construction and effects of support messages warrant additional empirical scrutiny. Although several scholars argue that the potential to take one’s time in crafting support requests or attempts at providing support could foster more effective supportive interactions (Caplan & Turner, 2007; Wright & Bell, 2003), relatively little research has examined this issue. It would be valuable to more directly explore if and how the degree to which a technology is asynchronous influences the production and effects of support messages. Moreover, it would be useful to further examine how this particular characteristic is appropriated by support seekers and providers.

**Availability of Social Cues**

Another way that computer-mediated support is unique involves the availability of social cues such as facial expressions, eye contact, and vocalics. Social cues can extend to information about one’s identity and include issues associated with anonymity. Different forms of CMC vary in the degree to which these cues are reduced or absent during interaction. This characteristic has been noted to have potentially significant implications for communicating support (Caplan & Turner, 2007; Tanis, 2008a; Wright & Bell, 2003), and studies conducted to date offer some evidence to support such claims (High & Solomon, 2014; Lewandowski et al., 2011). Additional research is essential to better understand the effects of reduced social cues on support processes and outcomes and as well as the mechanisms through which these cues bring about such effects. Formally manipulating the relative presence or absence of particular social cues in experimental research offers one potentially valuable approach. Qualitative studies considering the affordances stemming from the ways in which the reduction in social cues is appropriated by support seekers and providers would also be beneficial.

**Publicness**

Forms of CMC used to acquire and share support also vary in the degree to which they make possible public or private interaction. Whereas a technology such as e-mail can be used for dyadic communication, other technologies like blogs, SNSs, and online communities are public or semi-public in that the interactions that take place may be available to many people. The degree of publicness is important because it can dictate the type of audience to which a support seeker may have access. Although e-mail is valuable for connecting to known others such as family, friends, or health care providers, technologies that offer more public interactions can make it possible to connect with weak ties. Researchers have consistently highlighted the utility of technologies making possible more public interactions (High & Solomon, 2011; Tanis, 2008a; Wright & Bell, 2003) and scholars have demonstrated the benefits of support acquired via public technologies, such as blogs (Rains & Keating, 2011) and SNSs (Oh et al., 2014). Despite the value of such works, the unique contribution of publicness to the uses and effects of these technologies is not well understood. Research on computer-mediated support would benefit from sustained efforts at examining the implications of publicness for social support processes.

**Network potential**

A final dimension of CMC that is critical to consider involves the degree to which it is networked. Many popular forms of CMC relevant to social support—such as online communities, SNSs, and blogs—are distinct in that interactions take place among groups of interconnected individuals. Interaction occurs in the context of a broader network of actors also seeking and providing support. To date, however, little research has considered the implications of networks for computer-mediated support. Those studies that have been conducted offer important insights such as that structures of networks for different types of support vary over time (Haythornthwaite, 2001) and that networks in support communities can be highly centralized (Chang, 2009). Exploring computer-mediated support from a network perspective would generate insights about broader trends in supportive interactions and help to better understand how groups and communities function in fostering or mitigating particular support processes.

**Summary**

Examining the role of computer mediation in computer-mediated support is essential to help advance scholarship on this topic. As opposed to studying individual forms of CMC, scholars are encouraged to examine the implications of those characteristics that transcend particular technologies. Synchronicity, availability of social cues, publicness, and network potential are four characteristics that are particularly relevant to supportive interactions. Table 7.1 outlines a number of possible questions that might be investigated. Systematic and enduring efforts to study how these characteristics are used to seek and exchange support and with what effects will make it possible to more fully understand computer-mediated support.

**Situating Online Support in the Context of Offline Resources**

Another objective for scholarship on computer-mediated support involves adopting an ecological perspective of social support and CMC and considering...
Consider what CMC Can Tell Us about Social Support Processes

In addition to the benefits of better understanding computer-mediated support for its own sake, examining CMC has the potential to advance our knowledge of basic social support processes. As was previously noted, much of the research on social support has been conducted in the context of face-to-face interaction. Because CMC is unique from face-to-face interaction in several important ways, it offers a novel vantage point from which to observe fundamental aspects...
Conclusion

It is reasonable to conclude that Kiesler and colleagues (1984) forecast the potential of CMC for social support has proven accurate. Multiple national surveys (Fox, 2011; National Cancer Institute 2012) offer evidence that computer-mediated support is an important resource among cancer survivors. Many of the purported benefits of computer-mediated support among adults are not thought to be realized, however, until several of the specific issues examined in this review have been addressed. Moreover, important questions remain, particularly about the operating mechanisms and broader ecological factors contributing to the support-related implications of CMC. Research on this topic has accumulated over the years, but critical efforts to address these issues are needed in order to develop a comprehensive understanding of social support processes.

Examining Contexts beyond Health

As evidenced by the studies reviewed in this chapter, research on computer-mediated support contexts beyond health is largely conducted in the context of health-related social support. Although it is absolutely critical to further explore support beyond health, researchers should be aware of the potential limitations of this approach. Support would be particularly valuable in understanding the impact of computer-mediated support on social support in other settings and diversifying the types of support. More fundamental research on computer-mediated support is needed in order to develop a comprehensive understanding of social support processes.

Note

1. Research on MMOS is included in the review because MMOS tend to offer some interesting and relevant similarities with online communities. It is our hope that continued efforts and future research are presented in an effort to fully understand and address these issues.


Feng, B., Li, S., & Li, N. (2013). Is a profile worth a thousand words? How online support-seekers profile features may influence the quality of received support messages. *Communication Research*. Advanced online publication. doi: 10.1177/001041351349042


Wright, K. B., Rains, S., & Banas, J. (2010). Weak-tie support network preference and perceived life stress among participants in health-related, computer-mediated