ABSTRACT

Coping with COVID-19: Employee Use of Virtual Communities

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The purpose of this study is to investigate the impact of employee participation in virtual communities while coping with organizational change. The current coronavirus pandemic offers a unique and unprecedented context through which we can examine employee coping behavior. Toward this end, the current study applies Brashers' Uncertainty Management Theory and Hawthornthwaite's Media Multiplexity Theory to examine how organizational changes initiated by COVID-19 impacted workers' uncertainty, coping, and workplace technology use. Results from the survey data (N = 160) provide insight into the ways employees from various industries used their virtual platforms to accomplish work-based tasks and remain connected to co-workers through such drastic changes.

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TABLE OF CONTENTS

LIST OF TABLES vi

ACKNOWLEDGMENTS vii

CHAPTER ONE 1
Introduction 1

CHAPTER TWO 7
Literature Review 7
The COVID-19 Pandemic 7
Uncertainty Management Theory 8
Media Multiplexity Theory 10
The Nature of Organizational Change 13
Coping 17
Coping in the Workplace 22
Virtual Communities as Sites for Coping 24
Summary 29

CHAPTER THREE 31
Methodology 31
Data Collection 31
Measures 33
Data Analysis 41
Results 43
Results Summary 46

CHAPTER FOUR 48
Discussion 48
Summary of Findings 48
Theoretical Implications 49
Practical Implications 56
Future Directions 59
Limitations 62
Conclusion 63

APPENDIX 65
Survey 66

BIBLIOGRAPHY 76

LIST OF TABLES

Table 1. Participant Industry and Organizational Tenure 33

Table 2. Table of Correlations for Main Variables 42

ACKNOWLEDGMENTS

This project would not have been possible without the chair of my thesis committee, Dr. Jessica Ford. I owe the completion of this thesis to your insightful direction, consistent support, and motivating encouragement. You are an inspiring mentor, scholar, and friend, I am so thankful to have been able to work so closely with you throughout the past year. Thank you for believing in me, challenging me, and dedicating so much time to this project.

I would also like to thank my thesis committee, Drs. Lacy McNamee, Jane Damron, and Allison Alford, for your thoughtful consideration of this project. I am so thankful to each of you for taking the time to invest in my thesis, offer thoughtful critiques, and encourage me along the way. Each of you offered significant contributions to this project, and I am honored to have had you on my committee.

Next, thank you to my family and friends for your consistent love and support through this entire process. To my parents and my grandmother, thank you for your constant encouragement and excitement for my thesis—each call, text, and FaceTime encouraged me to push myself to do my absolute best on this project. To my sisters, thank you for letting me fill the group chat with talk of surveys and research; whether I needed encouragement or lighthearted memes and jokes, your support was invaluable. Daniel, thank you for caring so much about this project with me. The way you celebrated every individual milestone and check-point through this project meant the world to me, and motivated me to face every challenge with excitement and determination.

CHAPTER ONE

Introduction

As of March, 2021, the coronavirus pandemic has resulted in upwards of 119 million cases and over 2.6 deaths globally (BBC News, 2020; The New York Times, 2020). The outbreak of the pandemic has prompted dramatic changes in both economic activity (Stephens et al., 2020) and social life (Jing Xin, 2020; Lee, 2020) in virtually every country in the world (Brinkman, 2020; The New York Times, 2020). Regardless of size, revenue, or tenure, organizations are not immune to the ramifications of the pandemic. In fact, organizations have had to adapt to the challenges of virtual work as such unprecedented change has necessitated work-from-home practices (Jing Xin, 2020; Lee, 2020; Rofcanin & Anand, 2020; Stephens et al., 2020). Though the rise of flexible working arrangements, such as work-from-home initiatives, have become more prominent in the United States in recent decades (Allen et al., 2015), the pandemic spurred drastic and unanticipated changes to the ways in which work is accomplished in nearly every business sector (Brinkman, 2020; Lee, 2020; Stephens et al., 2020).

Research on organizational change helps categorize types of change and demonstrate the implications of changes on organizations and their members (Bordia et al., 2004; Hart et al., 2003; Tucker et al., 2013). For example, current literature examines a variety of workplace change plans such as organizational mergers (Schweiger & Denisi, 1991), restructuring (Hart et al., 2003), and the incorporation of new communication procedures (Lewis & Russ, 2012). Undergirding this research is the idea that change is

inevitable in organizational life. Organizational change may be transformational—such as a corporate merger—that ushers in a "complete rethink of what an organization does or stands for," or incremental—comprised of smaller, day-to-day shifts in processes or function (Tucker et al., 2013, p. 186).

An inevitable implication of change is uncertainty (Bordia et al., 2004; Zomer, 2012), which is commonly experienced in times of organizational decision-making, planning, and communicative interactions with others (Brashers, 2001). Brashers' Uncertainty Management Theory (UMT) introduces a shift to preceding theories concerning uncertainty by offering a more subjective and temporal treatment of uncertainty (Brashers, 2001). Consider, for example, Berger's Uncertainty Reduction Theory (URT). URT conveys uncertainty as a driving factor for information seeking due to its inherent discomfort (Son et al., 2020); however, Brashers' Uncertainty Management Theory highlights the range of responses to uncertainty. In fact, UMT posits that chronic uncertainty can actually be tolerated and appreciated in certain cases, such as chronic illnesses (Brashers, 2001). Consequently, UMT bears practical significance, as it has been used across medical (Rains & Tukachinsky, 2015b), interpersonal (Afifi & Afifi, 2009) and organizational contexts (Brashers, 2001). Through this theory, Brashers outlines the following in regards to uncertainty: its nature and meaning, its relationship with appraisals and emotional responses, and strategies used in managing uncertainty. The theoretical and practical relevance of UMT offers a suitable lens for examining nuances of uncertainty experienced by workers transitioning to remote work due to the pandemic.

Uncertainty resulting from organizational change, for example, has been classified according to three levels of analysis: organizational, group, and individual (Bordia et al., 2004). Consequently, job-related uncertainty is likely to affect not only the individual experiencing uncertainty, but their surrounding groups and organization as well; this warrants further investigation into the impact of uncertainty on interpersonal connections and dyadic ties at work, as these networks function as possible sources of support in light of uncertainty (Cullen et al., 2014). Haythornthwaite's Media Multiplexity Theory (MMT) characterizes interpersonal relationships according to the "tie strength," or degree of relational closeness, of the dyad (Haythornthwaite, 2005, p. 126). Further, MMT highlights a unique dynamic of these interpersonal ties, as it illustrates the connection between a dyad's relational closeness and their patterns of media use (Haythornthwaite, 2005). More specifically, MMT posits interpersonal closeness drives a dyad's use of communicative media (Haythornthwaite, 2005; Miczo et al., 2011; Taylor & Ledbetter, 2017). Coupled with Brashers' Uncertainty Management Theory, Media Multiplexity Theory offers unique insight into the ways in which dyadic ties may experience, evaluate, and manage uncertainty through their use of communicative media.

Uncertainty and stress are exacerbated during organizational change efforts (Bordia et al., 2004; Zomer, 2012). Although UMT speaks to the range of responses to uncertainty, organizational uncertainty is often an aversive condition, which drives individuals to reduce or manage cognitive discomfort (Bordia et al., 2004). Such uncertainty is often related to the nature, logistics, and impact of change efforts, as change initiatives frequently necessitate both personnel and organization-wide changes

(Bordia et al., 2004; Schweiger & Denisi, 1991). For example, research led by Schweiger and Denisi (1991) investigated employee uncertainty and stress following the announcement of a corporate merger. Their research testifies to the negative effects of such changes, as employees reported an increase in uncertainty, decrease in workplace satisfaction, and decrease in organizational commitment in light of the change announcement. Given the potential deleterious outcomes resulting from organizational change, research must continue to address the outcomes of organizational change in an effort to help organizations and their members achieve resiliency amidst such changes (Lewis, 2011).

Change may also be the result of crisis management (Anthonissen, 2008). Whether planned or emergent, proactive or reactive, change efforts unavoidably yield implications that are individually and collectively relevant. Individually, member uncertainty and stress are amongst the most frequently cited symptoms of organizational change (Cullen et al., 2014; Kumar & Kamalanabhan, 2005; Zomer, 2012). In the case of COVID-19, uncertainty and anxiety are not only heightened (Brinkman, 2020; Lee, 2020; Treré & Punathambekar, 2020), but will likely be long-lasting due to the unpredictable, unremitting nature of the pandemic (Stephens et al., 2020). Consequently, employee uncertainty, stress, and doubt resulting from the pandemic are likely to affect workplace norms (Rofcanin & Anand, 2020), organizational practices, and economic stability (Stephens et al., 2020). Furthermore, adapting to virtual, remote working arrangements may threaten work-life balance, workplace relationships, organizational commitment, job satisfaction, and even work intensification (Allen et al., 2015). Thus, the COVID-19

pandemic offers unique insight into how organizational members experience and adapt to the uncertainty of workplace change.

Current literature speaks to the relevance of employee coping in a variety of contexts, such as employee perceptions and reactions to organizational change (Fugate et al., 2008), employee coping with sexual harassment in the service sector (Good & Cooper, 2016), and employee coping in response to work-related stress (Lowe & Bennett, 2003). More recently, research has also begun to explore the impact of engaging in professional online communities on coping behaviors and outcomes (Cohen & Richards, 2015; Marco Leimeister et al., 2008), given the growing presence and use of these digital platforms (Allen et al., 2015; Chen & Hung, 2010; Koch et al., 2012). However, organizational shifts to telework and other digital networks due to COVID-19 pose an interesting opportunity to investigate the role of virtual communities in employee coping. Given the elevated stress and uncertainty caused by the pandemic, individuals are likely to engage in various coping strategies (Kumar & Kamalanabhan, 2005; Lazarus & Folkman, 1984). Applying our understanding of virtual communities to the context of the pandemic may yield valuable insight regarding the ways in which employees can use these forums to specifically cope through workplace stress and uncertainty in crisis. Thus, studying professional virtual communities may uncover the ways employees can use these platforms to connect, share information, and cope with pandemic-related changes in their organization.

In an effort to better cope with the stress and uncertainty generated by COVID-19 related changes, self-organized support groups have emerged online (Stephens et al., 2020). The term “virtual communities” is used to describe such online forums that

display shared group identity through computer-mediated means (Kisielnicki, 2002, p. 68). These groups are often self-organized, Internet-based discussion forums used to offer emotional and informational support to fellow members (Chen & Hung, 2010; Kantanen & Manninen, 2016; Li et al., 2019). Virtual communities not only offer members the opportunity to participate in social interactions, but they often facilitate the exchange of information and ideas related to common interests or goals (Ardichvili, 2008). However, despite the growth of organizational Internet-based practices (Ardichvili, 2008), little research explores the potential for these platforms to assist employees coping with unprecedented workplace change.

To address this gap in literature, the current study investigates whether engaging in virtual communities influences employee coping behavior as they navigate pandemic-related change in their organization through the lenses of Brashers' Uncertainty Management Theory (UMT) and Haythornthwaite's Media Multiplexity Theory (MMT). Specifically, this study examines how employees perceive, appraise, and cope with the transition to virtual work as they now must interact and engage with each other through virtual networks. By surveying the experiences of members across a number of different industries, this study seeks to better understand the role of virtual community involvement in employee coping behavior while facing drastic organizational change. Toward this end, the following chapter reviews extant literature on organizational change, coping in the workplace, and virtual communities as resources for informational and interpersonal support throughout the COVID-19 pandemic.

CHAPTER TWO

Literature Review

The COVID-19 Pandemic

The coronavirus pandemic has triggered drastic shifts in organizational life (Jing Xin, 2020; Rofcanin & Anand, 2020; Stephens et al., 2020). The unspecified end of the pandemic magnifies feelings of doubt and anxiety for organizational members (Jing Xin, 2020; Lee, 2020; Rofcanin & Anand, 2020; Stephens et al., 2020). For many, engaging in remote work constitutes the new normal in organizational life (Jing Xin, 2020; Rofcanin & Anand, 2020). In fact, such adaptations may actually result in permanent changes to organizational procedures (Stephens et al., 2020), such as in-person meetings convening virtually, decrease in business travel, or rotating work schedules (Liu et al., 2020; Mudditt, 2020). Unfortunately, the ramifications of this pandemic extend well beyond organizational practices and norms, as it has also affected the economic environment at large. In fact, the initial months of the pandemic were met with a drastic increase in the U.S. unemployment rate, even surpassing the unemployment rate following the Great Recession from 2007 to 2009 (Kochhar, 2020). Many individuals are forced to reconcile with the reality that COVID-19 not only poses a threat to their personal health, but also to their work as they navigate organizational adaptations—and even job loss—as a result of the current crisis (Stephens et al., 2020). As a result, employees must evaluate, process, and cope with risk in new ways during this pandemic. As organizations across the globe modify their processes to adapt to the pandemic, employees must accommodate these

changes while simultaneously navigating the uncertainty of COVID-19 in their personal lives as well.

Uncertainty Management Theory

Brashers' Uncertainty Management Theory (UMT: 2001) addresses various sources, features, and repercussions of uncertainty. Rooted in the understanding that uncertainty is neither inherently positive nor negative, this theory challenges prior understanding that uncertainty inevitably generates anxiety (Bradac, 2001; Brashers, 2001), and instead postulates that uncertainty produces varied experiences, emotions, and responses through the appraisal processes—a central facet of UMT. Mirroring preceding research regarding stress and appraisals (Lazarus & Folkman, 1984; Rains & Tukachinsky, 2015a), UMT highlights the active role of appraisals in experiencing uncertainty. When an individual faces uncertainty, they may appraise the situation as beneficial, harmful, or ineffectual. Brashers (2001) emphasizes that ambiguity is not inherently negative, as there are varying degrees to which an individual may appraise uncertainty as positive or negative. In turn, the appraisal process is inextricably tied to one's emotional, psychological, and behavioural responses to uncertainty.

If an ambiguous situation is appraised negatively, for example, an individual will perceive it as dangerous or threatening; as a result, they will likely experience heightened anxiety, doubt, or panic (Brashers, 2001; Carcioppolo et al., 2016). On the other hand, in a positive primary appraisal an individual may gauge uncertainty as an opportunity for hope or optimism about what may occur (Brashers, 2001; Carcioppolo et al., 2016). In this case, positive primary appraisals can facilitate beneficial responses such as belief in a bright future or motivation to continue on (Brashers, 2001; Carcioppolo et al., 2016).

Lastly, individuals may initially appraise situations as neither positive nor negative, but instead experience a neutral emotional response; in this instance, the individual feels indifferent toward the uncertainty or considers it inconsequential (Brashers, 2001).

The connection between an individual's appraisal and response to ambiguity has been researched in interpersonal, health, and organizational contexts because of the inevitability and prevalence of uncertainty in day-to-day life (Brashers, 2001; Fugate et al., 2008; Lazarus & Folkman, 1984; Rains & Tukachinsky, 2015a). For example, Brashers (2001) speaks specifically to the relevance of UMT in addressing "real world problems" through examples of medical decision making and organizational life (p. 478). Healthcare, he explains, is full of instances that introduce uncertainty; decisions concerning diagnoses and treatments constantly instill feelings of uncertainty for patients and physicians alike (Brashers, 2001). Organizational decisions may not bear the same weight as life-or-death decision making in healthcare, but uncertainty is still present in workplace contexts. In fact, uncertainty is central to organizational life. Members will experience uncertainty through significant organizational events such as large-scale change (Bordia et al., 2004) or crisis (Ford et al., 2016), but also in day-to-day interactions and job requirements (Brashers, 2001).

Uncertainty associated with the coronavirus pandemic will not only impact organizations at the micro-level by producing role ambiguity or insecurity concerning job stability, but also at the macro-level, as the virus threatens economic stability and organizational sustainability (Stephens et al., 2020). Consequently, uncertainty at both the individual and collective level will likely produce lasting effects on organizational life following the pandemic. Because UMT acknowledges the dynamic nature of uncertainty

across differing contexts, this theory offers a unique lens into the occurrence, magnitude, and variability of uncertainty in the context of COVID-19.

Media Multiplexity Theory

Media Multiplexity Theory (MMT), explains the relationship between relational closeness and patterns of media use (Hawthornthwaite, 2005). The basic premise of MMT is that the strength of dyadic ties between individuals drives their use of communicative media (Miczo et al., 2011; Ruppel et al., 2018; Taylor & Ledbetter, 2017); the stronger the tie between individuals, the higher number of distinct communication channels they are likely to employ to maintain their relationship (Ledbetter, 2010; Miczo et al., 2011). In organizational contexts, weak dyadic ties are often characterized as "work-only" pairs, whose communication is typically limited to work-centric topics (Haythornthwaite, 2005, p. 130); because these dyads are not intimate or personal in nature, they rely on a limited number of organizationally established channels for facilitating communication (Chih-Hui Lai & Wenhong Chen, 2016; Haythornthwaite, 2002; Taylor & Ledbetter, 2017). In contrast, strong ties are associated with deeper levels of interdependence, a sense of belonging, and friendships independent of professional ties (Haythornthwaite & Wellman, 1998; Taylor & Ledbetter, 2017). In organizational settings, strong ties between co-workers resemble close friendships as their communication surrounds emotional and social needs, as well as work-based communication (Haythornthwaite, 2005). The time and energy needed to sustain strong ties often entails the use of multiple media use, such as e-mail or phone calls, as opposed to solely relying upon organizationally established media to communicate (Barakji et al., 2019; Chih-Hui Lai & Wenhong Chen, 2016; Taylor & Ledbetter, 2017). Alongside

organizationally established communication channels, dyads with stronger ties may also engage in forms of backchannel communication to hold private conversations that are of unique interest to them (Cogdill et al., 2001).

Backchannel communication describes private conversations accomplished through private channels (Cogdill et al., 2001). These channels maintain a distinct level of privacy because they are only visible to the select individuals using the backchannel (Cogdill et al., 2001; Dennis et al., 2010). Often accomplished through media tools such as instant messaging (IM), which enables one-on-one, unmediated communication between sender and receiver, backchannel communication allows individuals to simultaneously participate in public and private communication channels at work (Cogdill et al., 2001; Dennis et al., 2010). In fact, IM is not only becoming essential in organizational collaboration, but it is also "one of the most rapidly proliferating collaborative technologies in use today" (Dennis et al., 2010, p. 846). Through their research, Dennis et al. (2010) work testified to the many uses of instant messaging during organizational meetings, including the following: providing social support and comfort, privately inviting quieter organizational members to contribute to group-wide meetings, offering encouragement, or eliciting co-worker support. Dennis and colleagues refer to this form of backchannel communication as "invisible whispering," which specifically refers to the use of private IM channels during organizational meetings (Dennis et al., 2010, p. 846).

Members engage in backchannel communication for a variety of reasons, some of which are addressed through Dennis et al. (2010) research on invisible whispering. Similar to the intentions behind engaging in invisible whispering, members may also choose to interact through backchannels to collaboratively make decisions, discuss

content- or process-related workplace issues, keep public channels free of clutter from side conversations, or simply to alleviate boredom (Cogdill et al., 2001; Dennis et al., 2010). The relationship between tie strength and media use as posited by MMT demonstrates that dyads connected by strong ties are likely to engage in backchannel communication, whether through IM or similar communicative platforms. Research also attests to the potential for weak ties to grow into strong ties, via backchannel communication in virtual networks (Haythornthwaite, 2005). The potential for backchannels to facilitate the exchange of support, ideas, or assistance, however, is not only pertinent to the individuals in the dyad. For example, research suggests the creation and use of private channels may also strengthen group performance in organizations (Cogdill et al., 2001; Dennis et al., 2010), as these private channels allow participants to "unobtrusively help each other with the quality and success" of their organizational performance in public channels (Cogdill et al., 2001, p. 7). Because backchannel communication facilitates both social and professional connections, this form of "multimodal communication" yields individual and collective benefits (Chih-Hui Lai & Wenhong Chen, 2016, p. 3934; Haythornthwaite, 2005).

The implications of MMT, and specifically the use of backchannel communication between co-workers, is incredibly relevant to the current pandemic. Because of the organizational ramifications of transitioning to virtual work, many co-worker dyads have lost the ability to interact face-to-face. According to Haythornthwaite (2005), if individuals experience the removal of a communication medium, they will likely "take action to replace face-to-face contact" with other media, such as IM (p. 141). In this case, dyads with strong ties will presumably adapt to the shift to remote work and compensate

for the lack of face-to-face by "[carrying] on through other media" (Haythornthwaite, 2005, p. 138).

The Nature of Organizational Change

The occurrence of change in organizations can be planned or spontaneous, constructive or destructive, large or small scale. In fact, "organizational change and communication processes are rarely neat and orderly" (Barge et al., 2008, p. 365). Many organizational changes are the result of tensions, paradoxes, and contradictions that arise within the various contexts of organizational life. For example, changes may be incremental or transformational in nature, and can occur due to changes in leadership, strategic direction, or staff (Heilmann, 2007; Kumar & Kamalanabhan, 2005; Rafferty & Griffin, 2006; Williams & Connaughton, 2012). As with the COVID-19 pandemic, organizations must also adapt to change efforts brought upon by crises or natural disasters (Longstaff & Yang, 2008; Spence et al., 2007; Stephens et al., 2020). The implications of organizational change, regardless of scale or duration, are multifaceted and salient in nature (Rafferty & Griffin, 2006). As a result, all changes possess "the potential to prompt organizational members to question their own relationships with their organizations" (Williams & Connaughton, 2012, p. 458). For example, prior research examines employee resistance to change efforts, indicating that resisting employees likely perceive the change as threatening their organizational norms and membership roles (Battilana & Casciaro, 2013). Unsurprisingly, organizational change is often viewed as "one of the critical stressors in organizational life" (Kumar & Kamalanabhan, 2005, p. 176).

The complex and unpredictable nature of organizational change yields repercussions for all stakeholders and organizational members, as change efforts often introduce shifts in organizational processes (Bordia et al., 2004). Ultimately, change efforts cannot be carried out without the cooperation and participation of employees. According to Cullen et al., (2014), for example, employees are largely responsible for the successful execution of workplace changes. This remains true in the case of organizational management of the COVID-19 pandemic. Although organizations have no control over the pandemic itself, thorough and supportive communication are fundamental in ensuring the wellbeing of organizational members during change efforts (Christensen, 2014; Tucker et al., 2013).

Approaching change from the perspective of employees provides a unique, alternative stance on management-focused research, as much of the current literature has concentrated on structural or managerial influence in change processes (Cullen et al., 2014). For example, prior research evaluates organizational change from a more manager-centric approach by focusing on the use of persuasion in influencing change beliefs (Armenakis & Harris, 2009). However, employee perceptions of change are incredibly influential on their attitudes, participation, and performance in the workplace (Cullen et al., 2014). As a result, communicating support through change plans is key. In fact, employees who feel a lack of support may also hold negative job attitudes and withhold participation in organizational change efforts. In other words, the stress and uncertainty resulting from organizational change can impede employee goal-related endeavors (Bankins, 2015; Cullen et al., 2014). This is especially true in the current example of the COVID-19 pandemic. Because so many organizations had to adapt their

processes to virtual or remote work (Jing Xin, 2020; Rofcanin & Anand, 2020; Stephens et al., 2020), ensuring employee understanding and cooperation with the shift to remote work is critical for successful implementation of change plans.

Organizational Change and Uncertainty

Aside from the logistical implications of organizational change, employees often have no choice but to battle personal feelings of uncertainty, stress, and doubt throughout change plans (Bordia et al., 2004; Williams & Connaughton, 2012). Uncertainty, one's "perceived inability to predict something accurately," is experienced when an individual feels they lack sufficient information to make predictions or differentiate between relevant and irrelevant data (Milliken, 1987, p. 136). These indications of uncertainty are common in instances of organizational change, as well as global crises such as the coronavirus (Brinkman, 2020; Lee, 2020; Stephens et al., 2020). In fact, uncertainty is one of the most frequently reported psychological states experienced in organizational change (Bordia et al., 2004), and "the ongoing uncertainty" about the virus is likely to continue long-term (Stephens et al., 2020, p. 438). It is vital, then, to develop our understanding of uncertainty brought about by change because of its significant individual and collective implications. By its very nature, uncertainty is positively associated with stress and turnover intentions, and negatively associated with organizational satisfaction, commitment, and trust (Bordia et al., 2004; Cullen et al., 2014). Examining the consequences of workplace uncertainty is central to understanding how employees may react to and cope with organizational changes brought about by COVID-19.

The pandemic is a prime example of an unforeseen, dramatic shift to organization life and processes. Such a drastic shift emphasizes the various tensions employees face during change, such as navigating balance within their professional and personal spheres (Williams & Connaughton, 2012). Moreover, the COVID-19 pandemic has introduced various uncertainties for organizational members as they experience dramatic shifts in typical work patterns and boundaries between work, family, and private life (Rofcanin & Anand, 2020; Stephens et al., 2020). Delving deeper into the uncertainty that accompanies organizational change is vital in understanding and accounting for potential for resistance and employee coping strategies (Cullen et al., 2014).

Employee Resistance to Change

Negative reactions to change efforts are relevant in the context of workplace change (Fugate et al., 2008). In fact, organizational members often appraise change efforts as negative due to their uncertainty and perceived lack of support (Bankins, 2015; Cullen et al., 2014; Fugate et al., 2008). Negative employee reactions to change plans are associated with detrimental outcomes, not only as individual members, but to their organizations as a whole (Fugate et al., 2008). Negative appraisals of change are specifically associated with withdrawal and reduced performance from organizational members, which threaten organizational efficiency and the implementation of change processes (Christensen, 2014; Fugate et al., 2008). For example, research indicates that uncertainty regarding economic stability, interpersonal relationships, and workplace cultural changes may drive employees to resist organizational change (Bordia et al., 2004; Christensen, 2014). Employee resistance has the potential to derail change efforts,

as research indicates resistance slows change processes, hinders implementation efforts, and increases costs associated with the change (Christensen, 2014). By understanding and proactively addressing employee uncertainty through effective, informative communication, organizations may lessen members' anxiety surrounding change (Christensen, 2014; Cullen et al., 2014).

The effects of workplace uncertainty are pertinent not only in instances of pandemics and global crises, but in more typical change efforts as well. The novelty of change efforts triggers employee anxiety, doubt and stress in the workplace due to its magnitude, prevalence and inevitability (Cullen et al., 2014; Kumar & Kamalanabhan, 2005; Rafferty & Griffin, 2006). As a result, it is essential to recognize how organizational members experience, process, and cope with workplace change within their organization. The present study specifically investigates member appraisals and subsequent coping behavior in the transition to remote work due to the COVID-19 pandemic.

Coping

Coping refers to individuals' cognitive and behavioral efforts to manage experiences which they perceive to exceed or strain their available resources (Lazarus & Folkman, 1984; Tang & Mo, 2011). Fugate et al. (2008) speak to the importance of studying coping, as it is fundamental in understanding the role of stress in individual and organizational experiences. However, coping is not an isolated occurrence or brief process; in fact, Lazarus and Folkman (1984) contend that coping is composed of three processes: primary appraisal, secondary appraisal, and the enactment of coping strategies. Because appraisals precipitate coping responses and behavior, it is necessary to first

examine the current literature regarding how individuals appraise contexts rife with uncertainty (Fugate et al., 2008).

The Coping Appraisal Process

Primary appraisal is the initial meaning one assigns to a particular event or experience; through primary appraisal, an individual determines whether or not a situation is threatening and whether they perceive it positively or negatively (Carver et al., 1989; Fugate et al., 2008; Rafferty & Griffin, 2006). An individual assesses two aspects of a situation through primary appraisal: its motivational relevance, the extent to which one perceives the situation as relevant, and its motivational congruence, or "the extent to which the situation is in keeping with personal goals" (Lowe & Bennett, 2003, p. 393). In this case, COVID-19 possesses a high degree of motivational relevance because of its global reach impact on every sphere of daily life (Stephens et al., 2020, p. 428). Appraisals precede emotions; whereas appraisals are the primary, cognitive evaluations made in a situation, emotions assign significance to the experience (Fugate et al., 2008). Primary appraisal, then, is a key step in navigating novel situations, as this process is a determinant of how an individual will not only perceive their own efficacy moving forward, but it also influences their emotional response and subsequent coping behavior (Lowe & Bennett, 2003).

Secondary appraisal is the process in which an individual calls to mind potential responses or reactions to the threat or stressor (Carver et al., 1989). After the initial process of primary appraisal, determining the relevance and congruence of a situation, secondary appraisal considers available options and potential outcomes. In other words,

this process determines how to manage the circumstance and begins considering ensuing coping strategies (Bankins, 2015). If primary appraisal questions, “What is going on here?,” the secondary appraisal asks, “What do I do next?” (Bankins, 2015). In some ways, the process of primary and secondary appraisal encompasses both the emotive and cognitive aspects of encountering stress or novel experiences. For example, the pandemic has caused sudden and novel changes to daily life with personal, social, and professional implications (Lee, 2020; Stephens et al., 2020); through secondary appraisal, individuals may question how to move forward amidst so much uncertainty.

The appraisal process is not an isolated or fleeting occurrence. In fact, the process of appraising situations and interpreting initial emotional reactions results in more long-lasting implications, as it influences individuals’ ongoing emotional reactions (Zomer, 2012). As previously mentioned, one of the largest stumbling blocks for individual workplace performance is stress or uncertainty. As a result, the degree to which someone considers an experience to be stressful is central to how they emotionally and cognitively appraise the situation (Bankins, 2015; Cullen et al., 2014; Rafferty & Griffin, 2006). Because the pandemic and its associated uncertainty is likely to persist long-term (Stephens et al., 2020), employees will need to continually appraise and reappraise their current experiences.

Types of Coping

Following one’s appraisal of a situation, coping is the execution of that response—often a dynamic process involving both problem-focused and emotion-focused responses (Bankins, 2015; Carver et al., 1989). The complexity of coping is, in part, due

to the availability of various potential coping responses which can differ based on the appraisal of the situation, individual preference, context and more. Although there are numerous ways in which individuals cope, the current literature frequently differentiates problem-focused coping and emotion-focused coping as forms of coping behaviors (Scarduzio et al., 2018; Zomer, 2012).

Problem-focused coping behaviors are enacted to resolve the original stressful situation, which may cause one to alter how they interact within their environment or even alter the environment itself (Scarduzio et al., 2018; Zomer, 2012). Commonly referred to as control-oriented or active coping, this type of response is proactive, engaged, and motivating (Fugate et al., 2008; Zomer, 2012). For example, problem-focused coping behaviors in the workplace might entail an organizational member actively learning how to maneuver their new virtual workspace as a result of COVID-19. It is important to note in this example that although these coping efforts are problem-focused, they cannot eradicate the pandemic itself; however, this example still demonstrates active effort to confront the stressor of navigating unfamiliar work practices. Although the change to virtual work may leave employees uncertain of how to execute professional tasks, actively seeking information about the change may help them make sense of the change (Rains & Tukachinsky, 2015a), decrease feelings of uncertainty or even accept ambiguity as a part of life (Brashers, 2001). While problem-focused coping strategies prompt individuals to address their stressor, taking steps to actively reduce uncertainty is not the only response to uncertainty (Carcioppolo et al., 2016).

Emotion-focused coping behaviors are strategies aimed at managing one's emotional response to stressful situations through behavioral and/or psychological

responses (Scarduzio et al., 2018; Zomer, 2012). In contrast to problem-focused or active coping behaviors, emotion-focused behaviors are referred to as avoidant or escape-oriented coping mechanisms, and they often represent one's attempt to evade stressors or its associated repercussions (Fugate et al., 2008; Liu, 2016; Zomer, 2012). Fugate et al. (2008) propose employee use of sick time as an example of avoidant coping behavior, as it provides the chance to recharge or evade organizational responsibilities. In the context of the current pandemic, consider an employee coping with the transition to virtual work. In contrast to actively familiarizing themselves with the novel online platforms and professional duties, an employee may instead choose to redirect their attention to other, non-work-related activities, to regain a sense of control or routine (Stephens et al., 2020). The "Coronavirus Baking Boom" is a prime example of this type of coping. During the pandemic, U.S. grocers faced an unusual shortage of flour due to the increase of bread-baking during the shutdown (Rude, 2020). In this case, baking could be considered an emotion-focused coping behavior insofar as it grants individuals the ability to disengage with the stress of COVID-19, and instead focus on a hobby or similar creative outlet (Stephens et al., 2020). In other words, this coping response offers a mental or emotional escape from the stress and ambiguity of change instead of actually changing the stressor (Lazarus & Folkman, 1984). Further examples of emotion-focused coping may be seeking social support through venting, selective attention, or trying to reinterpret stressful situations as positive (Zomer, 2012).

Effective coping mechanisms often yield a strong sense of control, gratification, and self-efficacy (Zomer, 2012). Effective copers, also referred to as *competent copers*, confront stressors in ways that either prevent or mitigate stress. As a result, they typically

experience less emotional drain and dissatisfaction in the face of uncertainty (Lazarus & Folkman). Although the effectiveness of specific coping behaviors varies based on context (Fugate et al., 2008; Lazarus & Folkmnan,1984), research indicates that coping strategies actually affect outcomes related to interpersonal relationships, professional roles, and health (Zomer, 2012). In summary, organizational change exacerbates uncertainty (Bordia et al., 2004); thus, the applicability of coping literature to the context of the pandemic aids in better understanding how organizational members might appraise and cope with their organization's changes.

Coping in the Workplace

The ever-changing nature of organizational life, especially in the context of the current pandemic, emphasizes the relevance of coping beyond just the theoretical. Developing our understanding of the dynamic role of coping during organizational change, even in times of crisis such as COVID-19, positions employees and organizational members as active response agents as opposed to passive recipients of change efforts. Research testifies to the common and prevalent nature of negative employee reactions to organizational change (Fugate et al., 2008; Scheck & Kinicki, 2000). The work of Scheck and Kinicki (2000), for example, demonstrates the tendency for organizational change plans to generate negative emotional reactions amongst employees. Consequently, negative appraisals of change plans can be detrimental to individual employees as well as their employers. Negative reactions are associated with damaging organizational outcomes, such as employee withdrawal and decreased organizational performance (Fugate et al., 2008). But how might organizations attempt to manage member reactions to a crisis as unpredictable and novel as the coronavirus? It is

important to note that the difficulty or novelty of a change effort does not inevitably produce negative appraisals. Rather, negative appraisals are typically the result of employees perceiving the change effort to be damaging or threatening to their work environment, job security, or current role (Fugate et al., 2008).

In the current case of COVID-19, organizations may not be able to control how employees appraise or react to the pandemic itself; thus there is hardly any "empirically-generated advice" for how organizations should communicate with stakeholders during a pandemic (Stephens et al., 2020, p. 438). However, thorough and supportive communication may alleviate feelings of anxiety or uncertainty surrounding the ensuing workplace changes generated by this pandemic. In any case of organizational change, social support is a valuable resource in coping with stress or uncertainty (Cohen & Richards, 2015; Cullen et al., 2014; Fugate et al., 2008; Scheck & Kinicki, 2000). Not only is social support important to psychological health (Brashers, 2001), but it can also enable the exchange of information and advice throughout change plans (Scheck & Kinicki, 2000). Information exchanged as a result of supportive communication may decrease uncertainty (Brashers, 2001), or help individuals make sense of the change (Rains & Tukachinsky, 2015a), both of which may influence employee coping behavior.

Negative employee appraisals of organizational change plans can produce real, tangible repercussions for the organization as a whole, such as an increase use of sick time (Fugate et al., 2008); this allows employees to avoid work and the resulting challenges brought about by change. However, the volatility of the current economic environment positions organizations and their members in a uniquely vulnerable spot (Kochhar, 2020). Because it is likely that the pandemic will "permanently change

organizations and organizing practices" (Jing Xin, 2020; Stephens et al., 2020, p. 451), employee involvement and adaptability is key for organizational survival.

The interdependent links between appraisals, emotions, coping strategies, and participation demonstrate not only the complexity of achieving successful change, but also capitalize on the role of employees in doing so. Effective coping is intended to mitigate negative emotions and facilitate positive ones; thus, research must evaluate which coping strategies organizational members employ, as well as how they may react to the organization's change plan (Fugate et al., 2008). Regardless of whether problem- or emotion-oriented strategies are enacted, workplace coping strategies are not only indicative of employee well-being, but may also be a crucial component of successful change efforts. Thus, it is in an organization's best interests to broaden their understanding of potential avenues for effective employee coping.

Virtual Communities as Sites for Coping

The term "communities of coping" is used to describe interpersonal support systems that stem from shared group identity (Korczynski, 2003, p. 58). In the context of organizational life, relational networks between coworkers are multifaceted. Such dyads may offer emotional, social, and task support, each of which are incredibly valuable in constructing a climate where employees feel "safe, valued, and treated fairly" (Miller, 2011, p. 12). In accordance with Korczynski's (2003) research on communities of coping, Miller's (2011) research on the role of disclosure among workplace friendships found that individuals often rely upon their coworkers as primary sources of workplace social support. Although these communities are informal in nature, they nonetheless play a vital role in forming and maintaining the social relations of an organization (Korczynski,

2003). With the increased implementation of Internet-based practices in the workplace (Ardichvili, 2008), and especially throughout the current pandemic, the ways in which employees engage with each other has also adapted. These types of virtual coping communities facilitate social capital (Yao et al., 2015), interpersonal collaboration and communication (Koch et al., 2012; Stephens et al., 2020), as well as aid organizational practices through knowledge sharing (Ardichvili, 2008; Yao et al., 2015), information exchange and problem resolution (Chen & Hung, 2010).

Virtual communities are "Internet-based communication forums" formed and used by "groups of people who communicate regularly in an organized manner" (Chen & Hung, 2010, p. 226; Kantanen & Manninen, 2016, p. 86). Virtual communities are characterized by the following three components: (a) their inherent social nature, (b) the interaction between a group of people and communication technology, and (c) the meanings assigned to the communities by group members (Kisielnicki, 2002). The platforms are typically self-organized and utilized regularly, which fosters the potential for personal relationships based on shared affiliation, interests, or goals (Chen & Hung, 2010; Kantanen & Manninen, 2016; Kisielnicki, 2002). Examples of virtual communities may include self-organized groups on Facebook (Cohen & Richards, 2015; Stephens et al., 2020), LinkedIn (Kantanen & Manninen, 2016), and other similar social networking platforms (Hsien-Tung Tsai & Bagozzi, 2014; Koch et al., 2012; Richards, 2012). Beyond the specific intention behind forming virtual communities, this form of organizing may serve both organizational and personal motivations. Despite the original understanding of social networking sites (SNSs) as online resources for individual recreational use, they are now increasingly considered "an integral part of organizational

life" (Koch et al., 2012, p. 699; Liu, Y., 2016). For example, Koch et al., (2012) references a report from 2010 indicating that up to 73% of companies use social media just to pursue marketing efforts, and other organizational SNS platforms allow employees to engage in projects, progress their careers, and connect with coworkers.

Soon after organizations began transitioning to virtual work in response to COVID-19, a number of virtual communities were created on various social media sites, namely Facebook (Stephens et al., 2020). Members of these coronavirus-specific groups interacted with each other to "exchange ideas and resources," "health and safety tips," and "emotional and mental support" (Stephens et al., 2020, p. 441), but these communities could also function as a dynamic avenue for seeking career-oriented information and pursuing workplace goals if used amongst organizational members. For example, engaging in virtual communities allows employees to access career-specific information, create solutions, improve employee capability, and generate innovations through computer-mediated means (Chen & Hung, 2010). This is especially important throughout the pandemic because of the amount of organizations transitioning into online spaces (Jing Xin, 2020; Rofcanin & Anand, 2020; Stephens et al., 2020). In fact, the new normal of flexible working arrangements (Rofcanin & Anand, 2020) is not unlike Koch and colleagues' (2012) description of organizations using virtual communities to "connect employees, facilitate mass collaboration, and improve communication" (Koch et al., p. 699). As a result, virtual communities benefit individuals in a professional capacity because they enable collaboration and organization-specific information sharing.

Second, and perhaps more relevant to the context of COVID-19, is that virtual communities cater to individuals' personal and social needs. Within professional virtual

communities, an emphasis is placed on communicating with fellow members of one's current social or organizational networks (Cohen & Richards, 2015; Miller, 2011). Accordingly, these communities may strengthen workplace culture and relationships by producing new spaces for employees to share work-related interests and enthusiasm (Cohen & Richards, 2015). Carrying this finding to the present pandemic suggests that these platforms may allow individuals to maintain interpersonal workplace relationships despite the current lack of face-to-face interaction and socialization. Essentially these platforms allow organizational members to interact with other like-minded employees, thus initiating or building workplace connections based on mutual interests (Cohen & Richards, 2015; Miller, 2011; Zurawski, 2015). Further, the asynchronous nature of computer-mediated interaction allows individuals to interact with fellow members regardless of geographic differences and time constraints (Cohen & Richards, 2015), while also maintaining the freedom to log off and return at a later time.

By creating positive emotions among employees, virtual communities can result in stronger workplace connections, strengthened rapport and social support, while generating social capital and fostering organizational citizenship behaviors in the workplace (Koch et al., 2012; Marco Leimeister et al., 2008; Yao et al., 2015). Interpersonal connection and interaction is vital for a healthy and desirable workplace culture, and increased communication is shown to produce close-knit relationships and increased trust (Liu, 2016). In this way, engaging in virtual communities has the potential to enhance interpersonal trust and unity in workplace relationships (Liu, 2016), despite the current lack of face-to-face interaction.

Cohen and Richards (2015) consider self-organized virtual communities to be "an important development and extension to the coping practices available to individual and groups of employees" (p. 1). Further, Cohen and Richards (2015) claim that some online forums may revive and inspire individuals' sense of control, workplace attachment, and organizational community (Cohen & Richards, 2015a), which is vital for organizational survival throughout the pandemic. If virtual communities can help employees feel an increased sense of control, connection and efficacy (Carver et al., 1989), they may even reappraise the transition to remote work as less threatening.

In order to better understand how SNS-based self-organized groups influence employee coping, Cohen and Richards (2015) studied a professional virtual community on Facebook, which employees created to facilitate a community of support amongst fellow organizational members due to shared employment concerns. Through observing the virtual community, Cohen and Richards (2015) saw employees engaging in both employment-related information-seeking and emotional support-seeking behaviors. One-on-one interviews testified to the interpersonal connection and support within the virtual community, as members recalled feeling relieved that they were not alone anymore, and that at the very least, they received emotional support from the group (Cohen & Richards, 2015a). Overall, Cohen and Richards (2015) demonstrated the possibilities for coping through virtual communities, as interpersonal networks were formed and strengthened through this digital platform; the insights gleaned from this study hold significant promise in the times of COVID-19.

Summary

Current literature contends that the irrefutable prevalence of organizational change, along with its associated implications, frequently positions employees in states of uncertainty and stress. As a result, understanding potential employee coping strategies is vital for ensuring both their personal well-being and organizational success, especially in the case of the coronavirus pandemic. Research demonstrates the advantages of engaging in virtual communities, but these platforms have the potential to do more than strengthen social networks and progress career-oriented goals; due to the pandemic, organizational members must now replace traditional, face-to-face interactions at work with interactions facilitated by digital platforms and virtual communities. Even prior to the pandemic, there has been an increase in employee use of social networking sites, such as forming virtual communities or forums on Facebook, in efforts to cope with organizational pressures (Cohen & Richards, 2015). Similarly, Stephens et al., (2020) research on the COVID-19 pandemic addresses the emergence of these online self-organizing support groups, created to facilitate the exchange of ideas, information and emotional support.

In times where remote working has seemingly become the new normal (Rofcanin & Anand, 2020), it is even more relevant to consider the potential of virtual communities in broadening individuals' ability to cope with negative situations in the workplace (Koch et al., 2012). By engaging in these platforms, organizational members may benefit from exchanging informational and emotional support, as well as maintaining connections with coworkers while working remotely. Despite the countless stressors of COVID-19 (Benecke et al., 2020; Brinkman, 2020, p. 33; Lee, 2020), virtual communities can be a valuable resource for employees facing uncertainty and change in their workplace. Even

in such uncertain times, there is potential for virtual communities to aid employees coping with the various organizational changes resulting from the pandemic. Thus, I offer the following research questions:

RQ1: Does multiple virtual platform use (i.e., Microsoft Teams, Zoom, etc.) during times of uncertainty increase coping-related behaviors (i.e., problem-focused, emotion-focused)?

RQ2: Does platform preference have a significant impact on (a) coping behaviors and (b) uncertainty for remote workers?

RQ3: Does backchannel communication predict (a) coping behaviors, (b) uncertainty, and (c) a positive appraisal of COVID-related changes at work?

RQ4: Does multiple virtual platform use during times of uncertainty impact employee appraisals of COVID-related change at work?

RQ5: What is the relationship between remote work due to COVID, uncertainty, and appraisals of COVID-related changes at work?

CHAPTER THREE

Methodology

The purpose of this study is to examine the impact of virtual community engagement on employees' coping with COVID-related uncertainty and the appraisal of their organization's shift to remote work due to the pandemic. Specifically, this study uses survey data to investigate if involvement in virtual communities impacts organizational members as they navigate remote working during the COVID-19 pandemic.

Data Collection

Participants were recruited from various online sources between December 2020 and January 2021 using several convenience sampling techniques. First, the survey link was distributed across the researcher's personal social media platforms, such as Facebook and Instagram. Second, the survey link was sent out on a popular communication list serv. Additionally, recruitment information encouraged individuals to forward the survey to co-workers or personal contacts who may be interested in participating. The survey was administered using Qualtrics and focused on various aspects of the employee's transition to virtual work due to COVID-19. Specifically, this study was designed to measure employee perception of organizational change, uncertainty, coping, and level of engagement within their organization's virtual communities.

Participants were asked to complete a 15-minute survey on their experiences using virtual platforms to navigate and cope with COVID-related changes at work. To

meet the selection criteria, the participants must have recently transitioned to remote or virtual work as a result of the pandemic. Participants must also use virtual platforms, such as Microsoft Teams, Slack, or Zoom, to accomplish work-related tasks and/or remain connected to their co-workers.

Participants (N = 160) varied in age, ranging from 21 to 74 years old (M = 40.6, SD = 14.3). The participant sample included 63 males (39.4%), 91 females (56.9%), and one identifying as gender variant/non-conforming (.6%). The educational level of the participants varied between a high school diploma or GED (n = 1, .6%), completion of some college (n = 5, 3.1%), and college degrees or above (n = 150, 93.8%). Four participants did not indicate their education level. One-hundred and fifty-nine participants indicated their race or ethnicity as either Caucasian (n = 128, 80%), Hispanic or Latino (n = 21, 13.1%), Black or African American (n = 3, 1.9%), Asian (n = 2, 1.3%), Native American (n = 1, .6%) or other (n = 4, 2.5%). Participants reported working in industries including professional and technical services (n = 57, 39%), educational services (n = 29, 20%), and law (n = 15, 10.3%), amongst others (See Table 1). Organizational tenure also ranged from 1 month to 30+ years (M = 6.24, SD = 6.49). See Table 1 for additional demographic information on participants' industry and tenure.

Table 1. *Participant Industry and Organizational Tenure*

Demographic Categories	**Frequency**	**Percentage (%)**
Industry (*n* = 145)		
Arts, entertainment or recreation	4	2.8
Educational services	29	20
Finance, Economics or Insurance	12	8.3
Health care or social assistance	6	4.1
Law	15	10.3
Management of companies or enterprises	5	3.4
Manufacturing	5	3.4
Non-profit or religious organizations	3	2.1
Professional, scientific, or technical services	57	39.3
Other	9	6.2
Organizational Tenure (*n* = 156)		
Less than 1 year (< 12 months)	29	18.6
1-5 years	55	35.3
6 – 10 years	40	25.6
11 – 20 years	23	14.7
21 years and above	9	5.8

Measures

Uncertainty

Member uncertainty was measured using Schweiger and Denisi's (1991) scale. Originally, this scale was administered at various points during an organizational merger to more thoroughly and accurately assess perceptions of uncertainty through drastic organizational change. Specifically, this scale was used prior to the merger, two weeks after the announcement of the merger, three days following the start of the preview program, and three months after the merger. This scale addresses uncertainty associated with a number of different aspects of organizational life, which will also contribute

insight into my first research question. However, this study excluded 9 of the 21 items from the original scale that do not fit the context of the study, and added 3 additional items specific to the context of COVID-related uncertainty. For example, I excluded an item regarding "whether [the employee] will have to relocate" because the purpose of this study is to research employees who have already had to relocate to remote working conditions. The newly included items prompt respondents to indicate their level of uncertainty regarding the following items: "whether you will be laid off," whether you will have to learn new job skills," and "whether you will have control over your job." These items were measured using a 5-point Likert scale ranging from "never uncertain" to "always uncertain." Schweiger and Denisi's (1991) prior testing using this scale shows a good internal consistency, with Cronbach alphas ranging from .91 to .97. To ensure adequate factor structure of this scale given the changes made to the original scale developed by Schweiger and Denisi's (1991), an exploratory factor analysis was run. Principal components analysis revealed four components with eigenvalues over 1, explaining 34.6%, 10.4%, 9.6%, and 7.2% of the variance. Factor 1 was comprised of 5 items reported on a 5-point Likert scale that explained 34.62% of the variance with factor loadings from .310 to .896. Further, factor 2 was comprised of 5 items reported on a 5-point Likert scale that explained 10.47% of the variance with factor loadings from -.449 to -.818. Comprised of 2 items reporting on a 5-point Likert scale, factor 3 explained 9.62% of the variance with factor loadings from .822 to .864. Lastly, factor 4 was comprised of 5 items reported on a 5-point Likert scale that explained 7.26% of the variance with factor loadings from .411 to .844.

Problem-Focused Coping

To measure problem-focused coping behaviors, this study adopted items from Kim and Lee's (2014) scale. The original scale is comprised of 5 distinct measures which assess the following behaviors: information seeking, information forwarding, enhancement of emotion-focused coping, enhancement of problem-focused coping, and affective coping outcome. Due to contextual relevance, this study uses 12 of the 30 total items from the original scale. The scale prompts respondents to indicate the ways in which they use their organization's virtual platform for problem-focused coping behaviors such as: "share information regarding COVID-related changes at work," "share my opinions and/or experiences transitioning to virtual work following COVID-19," and "look for information about COVID-related workplace changes." This scale uses a 5-point Likert scale ranging from "strongly disagree" to "strongly agree," but also offers the option to select "not applicable." The Cronbach alpha of these measurements range from .84 to .91. in Kim and Lee's (2014) research. This scale achieved a Cronbach alpha of .89 (M = 42.65, SD = 9.60) in this study.

Coping

To assess similar coping responses enacted by members, I adapted Carver et al. (1989) COPE inventory, which is comprised of 13 different measures and a total of 53 individual items. Due to contextual relevance, this study includes 4 of the 13 measures, amounting to 15 total items, that assess the following types of coping: motivations for seeking social support, positive reinterpretation of uncertainty, and acceptance, which are detailed below.

Seeking social support for instrumental reasons. These items from Carver et al. (1989) measure members' motivation for engaging in platforms; for example, this measure includes items such as "I ask co-workers who have had similar experiences transitioning to virtual work what they did." Because virtual communities are shown to offer informational and organization-based support (Chen & Hung, 2010; Koch et al., 2012), these items are useful for the goals of this study. These items are measured using a 5-point Likert scale ranging from "strongly disagree" to "strongly agree," with the option to select "not applicable." This scale achieved a Cronbach alpha of .75 in prior tests (Carver et al., 1989). In this study, the scale had a Cronbach alpha of .89 (M = 14.09, SD = 3.97).

Seeking social support for emotional reasons. Four-items were used to measure the degree to which members are using these platforms to seek emotional support. The availability for emotional and social support through virtual community involvement is common (Cohen & Richards, 2015; Stephens et al., 2020), so these four items from Carver et al., (1989) are relevant to the current study. This scale includes items such as "I talk to someone about how I feel," and "I try to get emotional support from friends or relatives regarding my uncertainty at work." Similarly, this scale is measured using a 5-point Likert scale ranging from "strongly disagree" to "strongly agree," and has obtained a strong Cronbach alpha of .85 in prior studies (Carver et al., 1989). This scale achieved a strong Cronbach alpha of .93 (M = 12.12, SD = 4.53) in this study.

Positive reinterpretation and growth. This four-item scale measures member "positive reinterpretation and growth" through items such as, "I look for something good in what is happening," and "I learn something from the experience" (Carver et al., 1989). This measurement closely mirrors the concept of engaging in a reappraisal process (Brashers, 2001; Lazarus & Folkman, 1984), which describes the process in which an individual reassesses their perception or understanding of an experience. This construct was measured with a 5-point Likert scale ranging from "strongly disagree" to "strongly agree," and has a Cronbach alpha of .68 in Carver et al., (1989) research. The authors claim this lower reliability "is not entirely unexpected," and attribute this lower coefficient to the "multiple-act criterion" of this individual scale (Carver et al., 1989, p. 271). In this study, this scale had a Cronbach alpha of .87 (M = 15.77, SD = 3.41).

Acceptance. Carver and colleagues' (1989) COPE Inventory includes a 4-item measure assessing acceptance in the face of uncertainty. Through items such as, "I learn to live with the uncertainty of COVID-19," and "I accept the reality that my workplace has changed due to COVID-19," this scale uses a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." In prior tests, this scale achieved a Cronbach alpha of .65; in this study, this scale had a Cronbach alpha of .90 (M = 12.13, SD = 2.43).

Source of Coping: Communication Channel

This scale was created by the author to measure where employees seek support when navigating work-related uncertainty. Two items relate to virtual sources for support, such as "I talk with co-worker(s) via phone call or text messaging," and "I talk

with co-worker(s) via my organization's virtual platform (whether on public or private channels)." The remaining two items reference interpersonal sources of support, such as "I talk with a close friend or family member outside of work," and "I talk with my manager/supervisor." This scale is measured on a 5-point Likert scale ranging from "never" to "always." Of the 159 respondents, 121 individuals (76.1%) indicated they talk with co-worker(s) using their organization's platform; similarly, 129 participants (81.1%) reported speaking with co-workers through texts or phone calls when navigating work-related uncertainty. While 135 of the respondents (84.9%) reported talking with their managers or supervisors when experiencing uncertainty, the majority of participants (n = 153, 96.2%) reported they talk with close friends or family outside of work as they navigate COVID-related uncertainty at work.

Engagement in Backchannel Communication

Backchanneling refers to private conversations between individuals during public conversations or conferencing (Chandler & Munday, 2016; Cogdill et al., 2001), and is often used as a sensemaking tool for change and organizational decisions. Drawn from Stephens (2012), this scale—called the "Media Multicommunicating Scale"— was formed to measure how organizational members use technology to simultaneously engage in multiple conversations during workplace meetings. For the purpose of this study, the items were adapted to measure the ways in which employees engage in backchannel communication using these platforms during work in general. The original scale is comprised of six measures, the dimensions of multicommunicating, in a 20-item scale. Because this study is not specific to the context of workplace meetings, the first 6

items were omitted. Respondents were prompted to indicate the purpose behind their private conversations with co-workers through items such as to “encourage others” and “provide others advice about how they should assess a work-related task,” which are adapted from the original scale. Four items were added to the end of this scale to specifically address the context of this study; for example, the following items were added “vent with co-workers about COVID-related changes at work” and “seek emotional support from co-workers due to COVID-related uncertainty.” This scale is measured using a 5-point Likert scale with 1 = “never” and 5 = “always.” Stephens’ (2012) prior test of the original scale achieved Cronbach alphas ranging from .85 to .94. In this study, this scale had a Cronbach alpha of .92 (M = 45.43, SD = 13.77).

Appraisal of Life Events

This scale, taken from Ferguson et al., (2010), measures individuals’ primary appraisal responses to stress. Based on work from Lazarus and Folkman (1985), this 20-item scale measures three factors: “threat” appraisals, “challenge and benefit” appraisals, and “loss” appraisals (Ferguson et al., 2010). Ten items, including adjectives such as “enjoyable,” “exhilarating,” and “painful,” were excluded from this particular study due to contextual relevance. Respondents were prompted to reflect on their experiences navigating COVID-related changes at work, and indicate the extent to which they experienced the following adjectives; items such as “worrying,” “distressing,” and “exciting” are listed. This scale was measured on a 6-point Likert scale, with 0 = “not at all” and 5 = “very much so.” The original three-factor scale had a Cronbach alpha

ranging from .74 to .86; in this study, this scale had a Cronbach alpha of .81 (M = 25.10, SD = 8.01).

Features and Use Frequency

This scale was created by the author to assess the frequency at which members use specific functions and features of their virtual platforms, such as the ability to form private and public channels, video chat, and direct message. Prompted with the question, "How often do you use the following features of your organization's virtual platform?" this 7-item scale includes items such as "the ability to interact more closely with my specific department," "the ability to create and use private channels to talk with co-workers," and "the platform's messaging function (both public and private messaging)." This scale is measured using a 5-point Likert scale, with 1 = "never" and 5 = "weekly," with the option to select "not applicable." Out of 156 participants, 87 individuals (55.8%) indicated they used their virtual platform to meet new people within their organization. Out of 118 participants, 96 respondents (81.4%) use their platform to interact more closely with their department. These platforms were used by 94 out of 125 respondents (75.2%) for the purpose of creating and using public channels to interact with project groups or teams, and 71 out of 115 respondents (61.7%) indicated that they use their platforms to form private channels for conversations with co-workers. Of the platforms' features, 94 out of 119 respondents (79%) use the video chat function, 76 out of 100 respondents (76%) use the messaging function, and 79 out of 118 respondents reported using the phone call feature of their platform (66.9%).

Data Analysis

The purpose of this study is to examine organizational member use of virtual platforms as they cope with pandemic-related uncertainty and changes to their work life. To begin, bivariate correlations were calculated for the variables in this study to determine if there were existing relationships between respondent demographics and the main variables of interest (see Table 2). There were existing relationships between respondent demographics and my variables of interest—namely between respondent age and their use of backchannel communication (-.30**), as well as age and appraisal of COVID-related workplace changes (-.36*). These relationships demonstrated that younger respondents expressed higher levels of uncertainty as they navigated pandemic-related changes at work, and they also reported more frequent use of their organization's virtual platform to engage in backchannel conversations with co-workers in comparison to more tenured members.

Table 2. *Table of Correlations for Main Variables*

Variable	*n*	*M*	*SD*	1	2	3	4	5	6	7	8	9
Age	150	40.58	14.25	--								
Currently Remote	150	2.55	1.87	.13	--							
Uncertainty	150	39.31	8.97	-.22**	-.31**	--						
Problem-Focused Coping	134	42.65	9.60	.03	.09	.101	--					
Instrumental Coping	138	14.08	3.97	-.18*	.07	.37**	.51**	--				
Emotional Coping	144	12.11	4.53	-.17*	.03	.26**	.41**	.65**	--			
Acceptance Coping	147	12.12	2.43	-.19*	-.03	.21**	.34**	.33**	.27**	--		
Backchannel	99	45.43	13.77	-.30**	-.09	.19	.24*	.29**	.31**	.04	--	
Appraisal	33	25.10	8.01	-.36*	-.24	.60**	.15	.47**	.32**	.24	.09	--

Results

To test whether the amount of virtual platform use increases coping-related behaviors (RQ1), a linear regression was conducted. The coping behaviors included strategies categorized by problem- and emotion-focused coping behaviors. The relationship between the amount of virtual platform use and various coping behaviors was not statistically significant. Regression results showed no statistically significant relationship between platform use and problem-focused coping (R^2= .00, F(1, 138) = 1.24, p =.26), instrumental coping (R^2= .00, F(1, 144) = .57, p = .44), emotional coping (R^2= .00, F(1, 150) = .06, p = .80), re-interpretive coping (R^2= .00, F(1, 155) = .26, p =.60), and acceptance purposes (R^2= .00, F(1, 153) = .31, p =.57). These results indicate that increasing engagement across multiple virtual platforms does not result in an increase in coping-related behaviors.

To examine whether platform preference had a significant impact on (a) coping behaviors and (b) uncertainty (RQ2), I ran several linear regressions. The first regression examined platform use frequency and problem- and emotion-focused coping behaviors, which includes coping behaviors for instrumental, emotional, re-interpretive, and acceptance-based purposes. This regression was not statistically significant, R^2= .01, F(5, 127) = .32, p = .89, thus, individuals' preference in which platform they use most frequently does not directly impact their coping behavior. The second regression on platform use frequency and member uncertainty was not statistically significant, R^2= .00, F(1, 157) = 1.09, p = .29. This result indicates that preference in platform use does not directly affect virtual workers' amount of uncertainty. Taken together, these tests demonstrate that although individuals may choose to use certain platforms over others,

these preferences do not directly impact their uncertainty and subsequent coping behaviors.

To evaluate the impact of backchannel communication on (a) coping, (b) uncertainty, and (c) appraisal of life events (RQ3), three linear regressions were run. The first regression examined the impact of backchannel communication on both problem- and emotion-focused coping behaviors. Using backchannel communication to seek support for emotional reasons was statistically significant, $R^2 = .15$, $F(5,82) = 2.94$, $p < .05$, $\beta = .30$, $p = .02$. This result indicates that using the virtual platforms to engage in backchannel communication with co-workers is directly related to individuals' emotion-focused coping behaviors, and more specifically, seeking support for emotional purposes. However, the relationship between backchannel communication and problem-focused coping and other emotion-focused coping behaviors was not statistically significant $R^2 = .15$, $F(5,82) = 2.94$, $p = .02$. Thus, backchannel communication within virtual communities does not directly impact certain coping-related strategies, such as seeking support for the purpose of re-interpreting or accepting instances of uncertainty. The next regression analyzed the relationship between backchannel communication and member uncertainty; this test was not significant ($R^2 = .036$, $F(1, 102) = 3.80$, $p = .05$). However, the results show that the p-value was approaching statistical significance and is a relationship ripe for future exploration. The regression examining the impact of backchannel communication on member appraisals of COVID-related changes at work was also not statistically significant, $R^2 = .00$, $F(1, 26) = .21$, $p = .64$, indicating that engaging in backchannel communication does not significantly affect member appraisals of COVID-related workplace change.

To answer RQ4, examining whether the amount of virtual community use impacts employee appraisals of COVID-related change at work, I ran a linear regression. With member appraisal as the dependent variable and platform use as the independent variable, this test was not statistically significant, $R^2 = .00$, $F(1,36) = .06$, $p = .79$. These results indicate that participating in virtual communities across multiple platforms does not significantly impact employee appraisals of COVID-related workplace change.

RQ5 examined the relationship between remote work due to COVID-19, uncertainty, and appraisals of COVID-related change at work. Specifically, what is the impact of (a) remote work due to COVID and (b) appraisals of COVID-related changes at work on job-related uncertainty? Several linear regressions were run to assess whether a predictive relationship among these variables exists. The first regression was significant indicating that the more remote a worker currently is (i.e., working remotely full time rather than part time or nor at all), the more uncertainty they feel about their job ($R^2 = .04$, $F(1, 155) = 7.86$, $\beta = .22$, $p < .01$). Likewise, the second regression revealed a predictive relationship between appraisals of COVID-related changes at work and uncertainty, such that lower appraisals of COVID-related changes at work increases job-related uncertainty ($R^2 = .34$, $F(1, 36) = 20.30$, $\beta = .60$, $p < .001$). Thus, the more distressing one's appraisal of COVID-related changes at work, the more uncertainty one has about their job during the pandemic. In fact, appraisals of COVID-related changes at work accounts for 60% of the variance in job-related uncertainty during the pandemic.

Post Hoc Analysis

Outside of the planned research questions for this study, I noticed there were significant correlations between variables such as age, uncertainty, and variables pertaining to certain coping strategies. Post hoc regressions revealed a significant relationship between age and uncertainty (R^2= .05, F(1, 148) = 7.95, β = -.14, p < .01), which indicates that older respondents reported lower levels of uncertainty as it relates to workplace change due to COVID-19. Another significant association (.65**) was found between two emotion-focused coping behaviors: seeking support for instrumental purposes and seeking support for emotional purposes (R^2= .42, F(1, 144) = 107.3, β = .65, p < .001). Similarly, post hoc analysis demonstrated a direct correlation between seeking support for instrumental purposes and problem-focused coping behaviors (R^2= .26, F(1, 133) = 46.65, β = .51, p < .001), which was unanticipated prior to conducting the research.

Results Summary

By examining participants' experiences navigating uncertainty, remote work, and organizational virtual platforms, this research lends valuable insight into how organizational members participate in professional virtual communities in times of uncertainty. The results revealed that increasing engagement in virtual communities by engaging in multiple platforms will not necessarily result in an increase in coping-related behaviors, nor is it directly related to member appraisals of COVID-related changes at work. Although individuals may choose to use certain virtual platforms over others, this choice is not significantly related to their coping strategies or their reported levels of uncertainty. The relationship between backchanneling and certain emotion-focused

coping behaviors indicates that individuals seeking emotional support in light of workplace uncertainty are likely to engage in backchannel communication with co-workers. Finally, this study demonstrated the significant relationship between remote work, uncertainty, and appraisals of COVID-related change at work, as members who were fully remote at the time of this study appraised such changes more negatively also reported higher levels of uncertainty. Together, these results reveal the dynamic relationships between uncertainty, appraisals, and coping strategies for individuals experiencing drastic change at work.

CHAPTER FOUR

Discussion

Summary of Findings

The goal of this study was to examine how employees engage in virtual communities while coping with pandemic-related changes at work. Grounded in Brashers' Uncertainty Management Theory (UMT) and Hawthornthwaite's Media Multiplexity Theory (MMT), this study examined how organizational changes initiated by COVID-19 impacted workers' uncertainty, coping, and workplace technology use. Results from the survey data provide insight into the ways employees from various industries used their virtual platforms to accomplish work-based tasks and remain connected to co-workers through such drastic changes.

Central to this study was the examination of the ways workers engaged in virtual communities as a means of coping with work-related uncertainty due to the pandemic. Furthermore, this study explored how virtual platform use influenced appraisals of workplace changes due to the pandemic. Findings revealed a number of significant correlations, some of which were anticipated, such as the relationship between engaging in backchannel communication and seeking emotional support. Data analysis also uncovered a few unanticipated correlations, such as the association between participant age and their reported uncertainty—where younger workers experienced more uncertainty than older workers. Similarly, age and engagement in backchannel communication was significantly correlated, where younger workers participated more in backchannel communication than their older counterpart.

The data also revealed a number of statistically insignificant correlations between particular variables of interest, such as individuals' amount of virtual platform use and their amount of coping-related behaviors, individuals' platform preference and reported levels of uncertainty, and the association between individuals' use of backchannel communication and their appraisal of workplace changes. These results reveal that a member's use of their virtual platform and participation in these virtual communities do not necessarily influence their coping behaviors while navigating drastic change. Consequently, these findings offer implications for both communication theory and organizations seeking to support employees as they navigate and cope with workplace change during the pandemic.

Theoretical Implications

The findings from this research demonstrate the complexity of workplace change as organizations transitioned into virtual spaces in response to COVID-19. Organizational members had to take on drastic shifts to their professional responsibilities and obligations as they navigated the shift to remote work. In addition to adapting to task-based changes, remote work also impacted interpersonal relationships between co-workers as traditional workplace interactions were now limited to online platforms. Due to the novel context of pandemic-related remote work, this study offers unique contributions to Brashers' Uncertainty Management Theory which conceptualizes uncertainty as multilayered, temporal, and inextricably tied to one's appraisal of their uncertainty—each of these principles are further illustrated through this study (Brashers, 2001). Likewise, this research adds to the body of literature on virtual communities by examining how organizations and their members rely on virtual communities when face-to-face

interactions are restricted. And finally, this research builds on existing theory surrounding backchannel communication by exploring the ways individuals specifically engage in backchannel communication when coping with drastic change. The implications for each of these bodies of literature is discussed further in the following sections.

Uncertainty Surrounding Workplace Change

Due to the novel context of this particular study, as respondents navigated COVID-related uncertainty and workplace change, the findings from this research contribute to existing knowledge surrounding workplace uncertainty. Specifically, this study applied Brashers' UMT to the novel context of the pandemic to examine the relationship between members' change-related uncertainty, their appraisals of workplace changes, and their subsequent coping behavior. Typically, UMT addresses the variability of responses to uncertainty within the context of health-related decision making and interpersonal relationships, often showing how appraisals of uncertainty are dynamic and depend on individual differences (Brashers, 2001). UMT posits that uncertainty is neither inherently positive nor negative (Brashers, 2001), rather, individuals engage in an appraisal process to assign meaning to their uncertainty (Rains & Tukachinsky, 2015a). The interdependent relationship between uncertainty and appraisals is further corroborated by the results of this study. The findings revealed a direct relationship between member uncertainty and their appraisals of workplace change, as higher levels of reported uncertainty were significantly related to negative appraisals of COVID-related change at work. Extant research speaks to the importance of positive appraisals surrounding organizational change, as negative appraisals are frequently associated with

member withdrawal and reduced performance at work (Christensen, 2014; Fugate et al., 2008). Because change-related uncertainty is so strongly associated with negative appraisals, these findings emphasize the importance of mitigating member uncertainty at work in pursuit of positive change appraisals.

The findings from this study also contribute to literature surrounding change-related uncertainty and coping behavior, and more specifically, how uncertainty influences members' problem- and/or emotion-focused coping strategies. Existing research differentiates these coping strategies according to an individuals' specific response to stress or uncertainty (Fugate et al., 2008; Scarduzio et al., 2018; Zomer, 2012); problem-focused strategies seek to address the stressor itself, whereas emotion-focused strategies aim to manage one's emotional response to the stressor. In accordance with extant coping literature, this study differentiated between the two coping behaviors to more closely examine how COVID-related uncertainty impacted members' specific coping strategies. Results revealed a significant relationship between uncertainty and emotion-focused strategies, where increased uncertainty was met with an increase in emotion-focused coping behaviors, but did not uncover a significant relationship between uncertainty and problem-focused strategies. These findings both complement and extend existing research on change-related uncertainty and workplace coping behaviors by demonstrating the impact of member uncertainty and subsequent coping responses during an unprecedented and drastic change experience.

It is important to note that current literature emphasizes the dynamic and complex nature of coping behaviors, as one's unique coping response may vary based on their individual preference, the context at hand, their intended outcome, and their perceived

control over the situation at hand (Bankins, 2015; Carver et al., 1989; Scarduzio et al., 2018). For example, this study used Carver et al. (1989) COPE inventory to more closely examine members' coping responses, as this measure outlines four specific strategies that are classified as emotion-focused behaviors. As conveyed in the findings, there were noticeable differences in the emotion-focused coping strategies employed by members as they navigated workplace change. Specifically, there was a very strong relationship between uncertainty and seeking social support for instrumental purposes, where increased reports of change-related uncertainty were met with increased reports of seeking social support for instrumental purposes. In the context of this study, a specific example of seeking social support for instrumental purposes is seeking task-related advice from co-workers in the virtual community. Another form of emotion-focused coping behavior is seeking support for emotion-based purposes, which was not as strongly related to uncertainty. An example of emotion-based support, for example, is an individual engaging in their community to discuss their feelings about the changes at work or to seek sympathy and understanding from co-workers. This particular relationship between uncertainty and seeking support for instrumental purposes is relevant to the literature on coping as it highlights specific motivations that drive people to seek support as they navigate drastic change.

Media Multiplexity Theory

This study contributes to Haythornthwaite's Media Multiplexity Theory (MMT) by demonstrating the ways in which remote members employ multiple media to communicate and connect with their co-workers. MMT specifically recognizes the

challenge in establishing and strengthening dyadic ties between members of online groups (Haythornthwaite, 2005), especially when face-to-face contact is replaced with computer-mediated communication. The solution, Haythornthwaite argues, is to ensure groups have the technical means "for both public and private conversation" in order to sustain the social and emotional interactions that form strong dyadic ties (2005). In corroboration with Haythornthwaite's claim, findings from this study revealed the positive relationship between backchannel communication and emotion-focused coping behaviors, where engagement in backchannel communication was directly associated with an increase in members' instrumental and emotional coping strategies. To build strong ties between individuals, Haythronthwaite (2005) explicitly advocates for multiple media use that includes the use of private channels (p. 139); given the relationship between backchanneling and emotion-focused coping behavior demonstrated through this study, this research validates Haythornthwaite's claim. Further, MMT speaks to the capacity for virtual communities to develop weak ties into strong ties (Haythornthwaite, 2005); in conjunction with MMT, this study's specific contributions to research surrounding virtual communities is detailed in the following section.

Virtual Communities

Research on virtual communities conveys the promise for virtual platforms to facilitate interpersonal collaboration (Koch et al., 2012; Stephens et al., 2020), connection (Korczynski, 2003; Yao et al., 2015), and support (Ardichvili, 2008; Miller, 2011). This study offers a unique contribution to current literature due to its specific investigation of virtual community engagement in times of uncertainty surrounding drastic workplace

change. More specifically, because respondents were recounting their experiences of pandemic-related remote work, these virtual communities were the only way for members to remain connected to their co-workers and organizations during this period of virtual work. This distinction is especially important to consider for virtual community research because organizations had to rely on virtual platforms and communities to a rather unprecedented degree. Current literature often examines the ways virtual communities impact or contribute to existing workplace cultures and relationships (Cohen & Richards, 2015; Koch et al., 2012), but the context of this particular study examined the ways employees use these platforms when they have no other means to collaborate or connect with their organizations and co-workers. Because these members were no longer able to participate in traditional workplace interactions, these virtual platforms were not just used to supplement interpersonal interactions at work—rather, these communities were entirely relied upon for accomplishing both interpersonal- and task-based interactions while navigating the shift to remote work.

As a result, this study intentionally differentiated certain variables related to respondents' virtual community engagement. Specifically, the variables distinguished between respondents' amount of platform use, which examined how many professional platforms these members used, as well as their platform preference, or the platform they tended to use the most frequently. These distinctions produced three findings that are particularly interesting in the context of virtual community research. First, findings revealed that there was no significant relationship between one's amount of virtual platform use and their subsequent coping behaviors. Second, the results also indicated there was no significant relationship between one's amount of platform use and their

appraisal of the COVID-related changes at work. Given the importance of positive appraisals for successful change ventures (Fugate et al., 2008), this finding is especially relevant. Taken together, these findings demonstrate that an increased use of virtual platforms does not necessarily impact one's change experience; although virtual communities may facilitate collaboration or support, increasing one's access to these platforms is not a significant contributing factor.

I also examined the impact of one's platform preference on their coping behaviors and reported uncertainty surrounding COVID-related change at work. The findings revealed that there were no significant relationships between one's platform preference and their coping behaviors or their reported uncertainty. This finding offers a unique contribution to virtual community research because it demonstrates that although individuals do exchange both problem-focused and emotional-focused support through these communities, as demonstrated by Cohen and Richards (2015), Koch et al., (2012), and this study, members are unlikely to reap these benefits solely from increasing their engagement across a number of platforms.

Backchannel Communication

Previous research on backchannel communication examines the ways individuals engage in private conversations by using virtual communication media (Cogdill et al., 2001). For example, current research examines individual use of media tools, such as instant messaging, to concurrently engage in both public and private communication channels at work (Cogdill et al., 2001; Dennis et al., 2010). This study contributes to existing theory surrounding backchannel communication because it demonstrates specific

strategies individuals employ as they appropriate and interact with communication media in times of uncertainty at work. Further, the results of this study begin to uncover the ways individual users employ backchanneling to remain connected with their co-workers, when they are no longer able to interact in traditional workplace settings.

Findings revealed a significant positive relationship between backchannel communication and seeking support for emotional reasons, which sheds light on the specific coping strategies most frequently used by individuals who backchannel with their co-workers. This finding complements existing literature, which speaks to the ways virtual communities enable and encourage social support and encouragement in times of workplace uncertainty (Dennis et al., 2010). By examining specific emotion-focused coping behaviors, such as using the virtual platform to share how they feel, discuss their feelings about workplace change, or to seek sympathy and understanding from co-workers, this study contributed valuable insight into how employees actually engage in backchannel communication as they navigate unprecedented uncertainty and change at work.

Practical Implications

Due to COVID-19, the drastic shift from traditional, in-person work to virtual work presents a novel context in which we can examine member use of organizational technology. Prior research demonstrates that workplace technologies play a considerable role in facilitating organizational practices, interpersonal relationships, and member experiences at work (Ardichvili, 2008; Chen & Hung, 2010; Koch et al., 2012; Yao et al., 2015). The results from this research speak to the ways organizations can harness technology during uncertainty producing crises to help mitigate employee uncertainty and

support members as they cope with such drastic change. For example, one of the guiding research questions in this study asked whether individuals' virtual platform preference had a significant impact on their coping behaviors and reported feelings of uncertainty. Although individuals may choose to use one platform over another, there was no significant relationship between one's platform preference and their coping strategies or their uncertainty. In other words, their amount and frequency of platform use did not have any considerable impact on their experience navigating COVID-related change at work.

This finding helps to inform organizations on effective ways to incorporate workplace technologies throughout periods of change. For example, an organization may choose to employ a variety of virtual platforms to cultivate employee connection and collaboration in times of change. However, these findings demonstrate that increased access to virtual platforms will not necessarily mitigate their uncertainty or predict subsequent coping responses. Instead, given the findings from the third research question—which asked if backchanneling predicted coping behaviors, uncertainty, and change appraisals—organizations invested in maximizing the exchange of social support amongst organizational members may choose to implement workplace technologies that enable and encourage backchannel communication. Prioritizing workplace technologies that promote backchanneling may contribute to member coping responses in times of uncertainty and change.

It is also relevant for organizations to consider the relationships, or lack thereof, between individuals' amount of virtual platform use and their appraisals of COVID-related changes at work. According to the findings from this study, increased access to multiple virtual platforms does not necessarily predict their appraisal of COVID-related

changes at work. Similarly, one's access to multiple virtual platforms did not directly affect whether the participants appraised workplace changes due to the pandemic positively or negatively. This finding is especially significant for organizations and individuals who are still working remotely, as the results also revealed significant relationships between members who are currently remote, their appraisals of COVID-related change at work, and their reported uncertainty. The more remote an organizational member's current work arrangement is, the more uncertainty they feel about work. Similarly, results revealed a positive relationship between member appraisals and uncertainty, such that increased feelings of change-related uncertainty were met with more negative change appraisals. Taken together, these findings can inform organizations on the implications of member uncertainty, as well as which technological features may aid employees coping with change.

Existing research emphasizes the relationship between employee appraisals and successful change implementation (Christensen, 2014; Fugate et al., 2008). Because positive appraisals are vital for successful organizational change, and because this study revealed the aforementioned positive relationship between individuals' uncertainty and their appraisals of COVID-related change, organizations ought to examine specific factors that contribute to member uncertainty. For example, results revealed significant correlations between age and uncertainty, where younger employees reported higher levels of uncertainty than their older colleagues.

Similarly, age was related to backchannel communication, as younger members were also more likely to engage in backchanneling with their co-workers. These results may influence organizations to incorporate virtual platforms that facilitate

backchanneling amongst younger or newer members, especially considering the potential for these private conversations to facilitate the exchange of encouragement amongst co-workers, privately invite quieter members to engage in group settings, and elicit social-support from others (Dennis et al., 2010). Because there is a direct relationship between backchannel communication and members seeking support for emotional reasons, organizations may be able to alleviate some degree of uncertainty for their younger members. If backchanneling will facilitate increased social support amongst an organization's younger members, who are more prone to uncertainty, negative change appraisals may decrease. In summary, the prevalence of workplace technologies, coupled with the inevitably of organizational change and subsequent member uncertainty, demonstrates the practical significance of this study's findings.

Future Directions

Future research should continue to examine organizational use of virtual communities during times of unforeseen change or crisis. Although research demonstrates how virtual platforms contribute to interpersonal- and task-based interactions between members (Ardichvili, 2008; Koch et al., 2012; Yao et al., 2015), there is considerable room to explore the ways these platforms impact members navigating crises at work. The findings from this study offer a glimpse into the ways employees use workplace technology as they cope with change, but there is ample room to investigate factors that contribute to this relationship between technology use and coping. For example, content analysis on backchannel conversations held between co-workers may provide a more thorough understanding of how users actually appropriate

virtual platforms, and for what purposes. Although this study differentiated between problem- and emotion-focused coping behaviors, a more nuanced look at the types of conversations held in private channels would bear both theoretical and practical relevance.

Further research is also needed to examine whether there is a relationship between backchannel communication and member uncertainty. The current study found this relationship to be approaching statistical significance—thus opening the door for potential exploration in the future. Additionally, research should examine the long-term impact of virtual community use, particular virtual communities that were formed prior to COVID-19. Because virtual communities have been shown to promote connection, collaboration, and support between members (Chen & Hung, 2010; Yao et al., 2015), it is plausible that pre-existing virtual communities cultivate different degrees of support in crises at work.

It is important that future research continue to examine the ways workplace technologies are appropriated in crises. Given the magnitude and duration of organizational shifts to remote work due to COVID-19, scholars should analyze the implications of virtual work through a variety of different theoretical lenses. For example, scholars ought to apply existing communication theories such as DeSanctis and Poole's (1994) Adaptive Structuration Theory (AST) to the context of COVID-related remote work; because AST examines the role of advanced information technologies in organizations, this theory would be useful in examining the distinct ways organizations and their members are appropriating virtual platforms as they transition to remote work.

For example, DeSanctis and Poole (1994) propose a number of measures for analyzing organizational appropriation, with micro-level being the smallest unit of analysis, and institutional-level being the largest. In the context of COVID-19, microlevel analysis may examine the specific speech acts of members using their virtual platforms to backchannel with co-workers. Examining the specific conversations held between coworkers when they use advanced information technologies could yield insight into the ratio of personal-based to task-based conversations. How do, for example, members appropriate AITs to share, discuss, or cope with their own personal experiences? On the other hand, institutional-level analyses examine organizational discourse about the technology through longitudinal observation. This degree of analysis aims to identify large-scale, continual patterns to understand how technologies create shifts in behaviors, problem-solving strategies, and decision-making processes (DeSanctis & Poole, 1994). Institutional level analyses would be incredibly valuable in COVID-related research, as it could reveal patterns in how virtual work has impacted largescale organizational structures.

Lastly, communication researchers should examine if and how COVID-related remote work has impacted organizational identification amongst its members. Research speaks to the importance of members' organizational identification and perception of organizational support for successful implementation (Ashforth et al., 2008; Broch et al., 2018). Given the prevalence of remote working mandates, it would be especially interesting to examine whether employees who appropriate advanced workplace technologies for personal means—such as initiating, sustaining, or strengthening relationships with co-workers—feel a greater degree of social support or organizational

identification. In sum, scholars should consider to examine the specific context of the coronavirus pandemic and its impact on organization by applying existing communication frameworks and theory.

Limitations

This study offers insight into the ways employees navigate and coped with drastic changes to the nature of their work during the COVID-19 pandemic through their engagement in workplace virtual platforms. However, the results of this research are not without limitations. First, this study sampled members from a number of different industries as opposed to sampling members from one organization or industry. A more nuanced sampling technique would have allowed for this research to provide an in-depth case study on normative virtual platform use, uncertainty surrounding workplace changes, and appraisals of such changes. Given the inherently social nature of virtual communities, members' experiences in these communities likely resemble the existing culture and values of their workplace, which would vary based on an organization's industry, demographic, location, and tenure. Limiting the sample to members of one organization may have resulted in a more consistent change experience from the study's participants.

A second limitation to this research is that many of the respondents were no longer working remotely. Although each individual had to have transitioned to remote work at some point during the pandemic, numerous participants were either fully or partially back to in-person work. It would have been advantageous to either have surveyed members earlier in the pandemic, when COVID-related remote work was

relatively new, or to have limited the survey to individuals who are still currently remote. These changes may have increased primacy effect in respondents, as their experiences navigating pandemic-related change would feel more immediate.

Lastly, a potential limitation for this study is that it relied solely on survey data. Although surveys enable researchers to collect and analyze large data sets, it does limit the depth and richness of participant responses. Interview data, for example, would have allowed respondents to explicate their experiences confronting, managing, and coping with COVID-related change at work in greater detail. Interviews would have also enabled participants to tell stories or more detailed accounts of their interactions in their organization's virtual community, which would have fortified the depth and credibility of the study's findings.

Conclusion

The coronavirus pandemic prompted drastic, unanticipated shifts to the ways we live and interact in everyday life in essentially every country across the globe (Brinkman, 2020; Jing Xin, 2020; Lee, 2020). Consequently, the implications of the pandemic are especially prevalent to organizational life as in-person work has been replaced with Zoom calls, inundated with virtual events, and run by remote workforces (Jing Xin, 2020; Lee, 2020; Rofcanin & Anand, 2020; Stephens et al., 2020). Given organizational reliance on workplace technologies, such as virtual platforms, to navigate the shift to remote work, this study sought to examine how employees are using these platforms to cope with pandemic-related changes at work. Collecting and analyzing survey data from employees across a number of different organizations and industries began to uncover the ways employees have engaged in virtual communities to communicate and collaborate while

coping with the pandemic. The findings revealed compelling, positive relationships between variables such as backchannel communication and emotion-focused coping behaviors, which demonstrate the capability of virtual platforms to support members as they navigate and cope with drastic change at work. Similarly, results revealed a positive relationship remote work and change related-uncertainty, indicating that members who are still remote reported higher feelings of uncertainty surrounding workplace change. As a whole, the findings from this research contributed valuable insight into how organizations can use virtual communities to effectively support their members as they cope with large-scale change at work.

Many pandemic-related adaptations in the workplace may trigger permanent changes to the way work is accomplished (Stephens et al., 2020). Although these virtual communities and platforms hold significant promise for promoting intraorganizational connection and productivity, there is ample room to examine the ways employees use virtual platforms to interact and cope with drastic change. As a result, it is vital that future research continue to examine the relationships between drastic organizational change, employee coping behavior, and virtual communities.

APPENDIX

APPENDIX

Survey

Uncertainty

Items 1-12 are taken from Schweiger and Denisi (1991). The remaining items were created by the author.

Using a scale of 1-5, please indicate to what extent you are uncertain about the following due to the changes brought about by COVID-19, with 1 = never uncertain and 5 = always uncertain.

	Score from 1-5
1. Whether you will have control over your job.	
2. Whether you will be laid off.	
3. Whether you will have enough information to do your job.	
4. Whether you will have influence over changes in your job.	
5. Whether you will have to take on more work than you are capable of handling.	
6. Whether you will be able to get promoted.	
7. Whether you will take a pay cut.	
8. Whether you will have to learn new job skills.	
9. Whether you will be required to take on jobs that you have not been trained for.	
10. Whether friends and colleagues lose their jobs.	
11. How performance will be measured.	
12. Whether the culture of the company will change.	
13. How long you will work remotely.	
14. Whether your workload will increase.	
15. How long COVID-related changes will last.	

Problem-Focused Coping

The following items are adapted from Kim and Lee (2014) instrument measuring information seeking, information forwarding, and enhancement of problem-focused coping.

Think of any uncertainty or confusion you've experienced following the transition to remote work during the pandemic, and how you have used Microsoft Teams during this time. Please rate your level of agreement with the following statements regarding your use of Microsoft Teams.

Using Microsoft Teams, I…	Strongly Disagree	Disagree	Feel Neutral or Don't Know	Agree	Strongly Agree	Not Applicable
Information-seeking						
1. Read posts or messages about COVID-related workplace changes.						
2. Look for information about COVID-related workplace changes.						
3. Have access to information regarding COVID-related workplace changes.						
4. Regularly check public and/or private channels to see if there is any new information about COVID-						

Using Microsoft Teams, I…	Strongly Disagree	Disagree	Feel Neutral or Don't Know	Agree	Strongly Agree	Not Applicable
related workplace changes.						
Information-forwarding						
5. Share information regarding COVID-related changes at work.						
6. Initiate discussions about COVID-related changes at work.						
7. Share my opinions and/or experiences transitioning to virtual work following COVID-19.						
8. Voluntarily share work-related information with co-workers following COVID-19.						

Using Microsoft Teams, I…	Strongly Disagree	Disagree	Feel Neutral or Don't Know	Agree	Strongly Agree	Not Applicable
Enhancement of problem-focused coping						
9. Use information garnered from Microsoft Teams channels when making a work-related decision or completing a work-related task.						
10. Discuss information from Microsoft Teams channels with my co-workers.						
11. Discuss information from Microsoft Teams channels with my supervisor or boss.						
12. Use the available resources to help me						

Using Microsoft Teams, I…	Strongly Disagree	Disagree	Feel Neutral or Don't Know	Agree	Strongly Agree	Not Applicable
navigate COVID-related changes at work.						

Coping

The following items are taken from Carver et al., (1989) COPE Inventory.

Think of any uncertainty or confusion you've experienced following the transition to remote work during the pandemic, and how you have used Microsoft Teams during this time. Please rate your level of agreement with the following statements regarding your use of Microsoft Teams.

Using Microsoft Teams, I…	Strongly Disagree	Disagree	Feel Neutral or Don't Know	Agree	Strongly Agree	Not Applicable
Seeking social support for instrumental reasons						
1. Ask coworkers who have had similar experiences transitioning to virtual work what they did.						
2. Try to get advice from someone about what to do.						

Using Microsoft Teams, I…	Strongly Disagree	Disagree	Feel Neutral or Don't Know	Agree	Strongly Agree	Not Applicable
3. Talk to coworkers to find out more about work tasks.						
4. Talk to someone who could do something concrete about my uncertainty .						
Seeking social support for emotional reasons						
5. Talk to someone about how I feel.						
6. Seek emotional support from friends or co-workers via Microsoft Teams.						
7. Discuss my feelings with someone.						
8. Get sympathy and understanding from someone.						

Using Microsoft Teams, I…	Strongly Disagree	Disagree	Feel Neutral or Don't Know	Agree	Strongly Agree	Not Applicable
Positive reinterpretation and growth						
9. Look for something good in the changes that are happening.						
10. See these organizational changes in a different light, to make the change seem more positive.						
11. Try to learn something from this experience.						
12. Try to grow as a person as a result of this experience.						
Acceptance						
13. Learn to live with the uncertainty of COVID-19.						
14. Accept that my workplace has adapted						

Using Microsoft Teams, I…	Strongly Disagree	Disagree	Feel Neutral or Don't Know	Agree	Strongly Agree	Not Applicable
due to COVID-19 and I cannot change that.						
15. Get used to the idea that COVID-19 has changed my workplace.						

Source of Coping: Communication Channel

This is a scale developed by the author.

Where do you go to get support for uncertainty related to workplace change due to COVID-19? **1 = never, 5 = always.**

	Score from 1-5
1. I talk with a close friend or family member outside of work.	
2. I talk with co-worker(s) via Microsoft Teams (whether on public or private channels).	
3. I talk with co-worker(s) via phone call or text messaging.	
4. I talk with my manager/supervisor.	

Engagement in Backchannel Communication

The following items are taken from Stephens (2012) Media Multicommunicating Scale.

How often do you use the private channel feature of MT to:
Please indicate the frequency on a scale of 1-5, with 1 = never and 5 = always.

How often do you use the private channel feature of MT to:	Score from 1-5

Providing social support – addressing the affective dimension of workplace participation	
1. Encourage others.	
2. Coach others.	
3. Check with others before making a work-related decision.	
4. Make you feel like part of the workgroup.	
5. Provide others advice about how they should assess a work-related task.	
Participating in parallel meetings – background conversations that can be distracting	
6. Distract you from your work-related tasks.	
7. Allow you to blow off steam and vent emotions in private.	
8. Joke with others.	
9. Make sarcastic comments to others.	
Directing the meeting – influencing the content and direction of workplace decisions or meetings	
10. Influence others about work-related tasks.	
11. Feed others lines or ideas during meetings.	
12. Control the direction of work-related meetings.	
13. Change others' opinions in work-related meetings.	
Managing extra-workplace activities – topics unrelated to the focal task	
14. Allow you to remain available to others even when you are in a meeting or other work-related commitment.	
Coping with COVID-related workplace change	
15. Vent with co-workers about COVID-related changes at work.	
16. Express uncertainty regarding COVID-related changes at work.	
17. Seek emotional support from co-workers due to COVID-related uncertainty.	
18. Offer emotional support to co-workers experiencing uncertainty about COVID-related changes at work.	

Appraisal of Life Events Scale

The following items are taken from Ferguson et al., (2010).

Consider your experience navigating COVID-related change in your workplace, namely the shift to virtual/remote work. On the six point scales provided (with 0 = not at all and 5 = very much so) indicate the extent to which each of the following adjectives best describes your perceptions of the change, at the time it occurred.

My initial experience transitioning to remote work due to COVID-19 was…

1.	Fearful	0	1	2	3	4	5
2.	Worrying	0	1	2	3	4	5
3.	Hostile	0	1	2	3	4	5
4.	Exciting	0	1	2	3	4	5
5.	Informative	0	1	2	3	4	5
6.	Boring	0	1	2	3	4	5
7.	Enjoyable	0	1	2	3	4	5
8.	Stimulating	0	1	2	3	4	5
9.	Distressing	0	1	2	3	4	5
10.	Challenging	0	1	2	3	4	5

Features and Use Frequency

How often do you use the following features of Microsoft Teams on a scale of 1 to 5, with 1 = daily and 5 = never?

1. The ability to meet new people within my organization by joining MT channels.
2. The ability to interact more closely with my specific department.
3. The ability to create and use channels to interact with project groups or teams.
4. The ability to create and use private channels to talk with co-workers.
5. The video chat function of Microsoft Teams.
6. The phone call function of Microsoft Teams.
7. The messaging function of Microsoft Teams.

1. In what ways has COVID-19 changed the way you work and the amount of work you have to manage?
2. In what ways have your co-workers or organization alleviated or contributed to your uncertainty surrounding COVID-related workplace change?

Demographic Information

Please fill in or mark the appropriate blanks below. If you feel uncomfortable in providing some of this information, please leave it blank. No identifying information will be reported.

1. How long have you worked for Compassion International? (in months) ____

2. At any point throughout the coronavirus pandemic, did you transition to remote and/or virtual work? ___yes ___no

3. Are you currently working remotely due to COVID-19?

    a. ___yes, fully remote ___no, fully in-person

    ___ partially remote

4. Are you involved in Microsoft Teams channels within your organization? ___yes ___no

5. Are you in a supervisory position within the organization? ____no ____yes

6. What is your age? (in years) _____

7. What gender do you identify as?

    _____Male _____Female

    _____Non-binary _____Prefer to self-describe: _____

    _____Prefer not to say

8. Which describes your highest education level?

    _____Some high school _____High school diploma/GED

    _____Some college _____College degree or above

9. Which best describes your race/ethnicity? _____Black or African American

    _____Hispanic or Latino _____White _____ Asian ___ Native American

    _____ Other

10. What is your first language? _____ English _____ Spanish _____ Other

1. Are you willing to be contacted for follow-up questions? (Yes/No)
    a. *If yes:* Please provide your e-mail address or other preferred contact method. _____

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