

Mental Health in the Modern Workplace: An Exploration of Individual and Relational
Consequences of Employee Depression

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Abstract

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Employee mental health is an increasing topic of conversation and concern in today's workplace. This dissertation consists of two chapters that explore employee mental health, specifically depression, as an important determinant of both individual and relational workplace consequences. In the first chapter, I seek to understand how remote work uniquely impacts employees who are experiencing depression. Results from three studies, using both archival and online panel data, found that remote work does not uniquely hinder a depressed employee's interpersonal well-being, but had inconsistent detrimental impacts to their intrapersonal well-being. In the second chapter, I seek to understand how the coworker of a depressed employee is perceived by another coworker when they attempt to engage in—and involve others in—social support behaviors. Across three experiments using both online panel and field data sources,

results highlighted the critical role of depression stigma in determining the extent to which social support behaviors are evaluated as empathetic and appropriate. This dissertation extends an understanding of the ways in which depression as a mental health condition is consequential to both the employee experiencing the condition, as well as their coworkers and surrounding climate.

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ABSTRACT

Despite the wealth of management research exploring remote work and its costs and benefits for employee well-being, the implications of remote work for depressed employees are not well understood by management scholars. The virtual work literature has found that for the average employee, higher intensities of remote work are interpersonally harmful and lead to increased isolation, but intrapersonally helpful and lead to increased autonomy and subsequent well-being (Gajendran, Ponnappalli, Wang, & Javalagi, 2024). However, depressed employees are likely to experience their social environments differently than their peers; and it may be critical to the trajectory of their symptoms to understand whether remote work is uniquely associated with activities that can enhance well-being, such as those that promote self-care and social support. Across three studies, using both archival and multi-wave data, I found effects that differed from core assumptions in the remote work literature. Study 1a and 1b surprisingly found that depressed employees did *not* face the increased nonwork social isolation that was associated with remote work for the average employee. However, my findings also did not provide any evidence that remote work could be uniquely helpful when an employee is depressed. Supplemental analysis from all three studies found partial, inconsistent evidence that high intensities of remote work are associated with deficits in various self-care activities (physical activity, healthy diet), challenging practical assumptions that remote work is a helpful accommodation in the face of depression.

INTRODUCTION

The world faces a global mental health crisis (Kaufman, Petkova, Bhui, & Schulze, 2020; McPhillips, 2022). Suicide rates in the United States rose by 30% between 2000 and 2020 (Garnett, Curtin, & Stone, 2022). Internationally, the World Health Organization reported a 13% increase in mental health conditions between 2007-2017, and a further 25% increase in anxiety and depression during the first year of the Covid-19 crisis (WHO, 2023). In other words, the pandemic exacerbated an already persistent societal need for improved mental health. One of the most common mental health conditions that has been implicated in this greater crisis is depression, which has become increasingly prevalent over the last twenty years (Shorey, Ng, & Wong, 2022; Weinberger et al., 2018). Depression is universally precarious because it can develop for a variety of reasons and arise anytime during adolescence through adulthood (Hankin et al., 2015). Moreover, depression is more likely to recur as an individual experiences it, making it difficult to completely treat and recover from (Buckman et al., 2018). At a severe level, depression has catastrophic consequences because it can lead to disability and self-harm (Irons, 2014).

Depression can impact—and be impacted by—one's occupation (Adler et al., 2006; Furlan et al., 2012). Research on the relationship between depression and employment has been studied by researchers in fields such as occupational health, clinical psychology, and to a limited extent, organizational behavior. For example, researchers in occupational health have investigated topics such as depression stigma in the workplace (Shann, Martin, Chester, & Ruddock, 2019), while clinical psychology has considered therapeutic interventions that can reduce depression symptoms for employed individuals (Hogg et al., 2021). Management research suggests that employees who experience depression could be affected by a variety of

organizational factors from leadership styles to the experience of burnout or job insecurity (Montano, Reeske, Franke, & Hüffmeier, 2017; Toker & Biron, 2012; Vander Elst, Notelaers, & Skogstad, 2018). One particular aspect of work—the act of working remotely—has become a dominant force in the current experience of employees (Cappelli, 2021; Edmondson, Williams, Frisch, & Davey, 2022). Experts estimated that post-pandemic, employees who could work from home were likely to continue to do so about 50% of the time, marking a drastic shift in work environment and day-to-day lifestyle since prior to the pandemic (Boyle & Rockeman, 2022). In 2025, one in five employees are expected to have jobs involving remote work, impacting over 30 million employees nationally (Haan, 2023). Importantly, organizational policies in favor of remote work exacerbate inequalities across employees, because working virtually is often less feasible for individuals of a lower socio-economic status (Gould & Shierholz, 2020; Nwosu, Kollamparambil, & Oyenubi, 2022). Amid this massive societal change towards remote work, it is critical to understand how individuals with mental health conditions might fare differently than their colleagues.

In this new era of remote work, could employees with depression be uniquely affected? This question can be illuminated to a limited extent by existing research. Management scholars have explored the various facets of remote work and its relationship with different elements of employee well-being (see Hill, Axtell, Raghuram, & Nurmi, (2022), for a review). Specifically, dimensions of remote work can impact elements of eudaimonic well-being (e.g., social isolation) as well as hedonic well-being (e.g., stress, job satisfaction) (Hill et al., 2022). Further, remote work is well established to be interpersonally *harmful* due to increased social isolation, but intrapersonally *helpful* because of increased autonomy (see Gajendran, Ponnappalli, Wang, & Javalagi, 2024, for a meta-analysis). This body of literature, although it provides important hints,

has not yet explored remote work in the context of depression or other serious mental health conditions. Clinical literature, on the other hand, has explored diagnosable mental health conditions in employees (e.g., de Vries, Fishta, Weikert, Rodriguez Sanchez, & Wegewitz, 2018). However, this literature typically focuses more on testing therapeutic interventions for employees (e.g., Huibers et al., 2004), as opposed to investigating how employees with mental health conditions react to different work characteristics. Due to this siloed nature of management and clinical literatures (Follmer & Jones, 2018; Kelloway, Dimoff, & Gilbert, 2023), the extent to which depressed employees could be uniquely impacted by virtual work is unclear.

Not only is it unclear *if* individuals with depression are substantially affected by virtual work arrangements, but it is also unclear *how* they might be affected. At the beginning of the pandemic, scholars initially suggested that the remote work experience and its ensuing isolation could be harmful for individuals with mental health challenges (e.g., Kanter & Manbeck, 2020). Many public opinions are aligned with these ideas; employees have commented that they believe virtual work has negatively affected their mental health (U.S. Chamber of Commerce, 2023). However, this may not always be the case. Some employees believe virtual work is helpful in the context of mental health, particularly because at-home resources can help employees cope with stressors (Martin, 2022).

Others have argued that virtual work is indirectly beneficial for mental health in general through an improved sense of work-life balance (Eisenberg, 2020). As employees differ in their sentiments toward virtual work in the context of mental health, human resource professionals also lack a clear understanding of virtual work's influence on an employee's mental health challenges, specifically depression (e.g., Mayer, 2023). Similarly, research in public health acknowledges that our understanding of remote work as it pertains specifically to depression is

highly limited because this body of research is so small (for reviews of remote work and well-being, see: (Lunde et al., 2022; Oakman, Kinsman, Stuckey, Graham, & Weale, 2020). However, these reviews do suggest that the role of virtual work in the context of depression is highly nuanced, and it is likely dependent on the amount of time spent working virtually (Henke et al., 2016), or on factors pertaining to one's family (Shepherd-Banigan, Bell, Basu, Booth-LaForce, & Harris, 2016). Importantly, employees experiencing depression are highly sensitive to their social environment; social interactions involving incivility, unfairness, ostracism, and an overall lack of reassurance about one's value and belonging within a social community all perpetuate further increases in depression symptoms (Follmer & Follmer, 2021; Hames, Hagan, & Joiner, 2013; Lang, Bliese, Lang, & Adler, 2011). Changes to a depressed employee's social environment, as a result of an increase in remote work, could therefore have unique, important consequences depending on how remote work interacts with depression's social sensitivities.

This paper accordingly poses the following interdisciplinary research question: For employees experiencing higher levels of depression symptoms, how does remote work influence their individual well-being? To answer this question, I draw from both clinical psychology and management literature to understand the phenomena of depression and remote work, respectively. I hypothesize that when an individual experiences depression, remote work worsens their interpersonal processes, particularly their engagement in activities that can generate social support. However, I also hypothesize that virtual work simultaneously improves a depressed individual's *intrapersonal* processes while working, by increasing their self-care related behaviors. I then hypothesize that these processes have implications for both nonwork and work outcomes (loneliness and job satisfaction, respectively), which may be relevant to an employee's

trajectory of depression symptoms. To test my theoretical model, I conducted three studies using both cross-sectional archival and multi-wave online panel data.

This paper seeks to contribute to management literature in the following ways. First, this research extends our understanding of the global movement towards remote work as it relates to serious mental health conditions. Existing organizational research often explores how certain work-related stressors may relate to the emotional component of depression: depressed affect (e.g., Pollack, Vanepps, & Hayes, 2012). Less understood by management research are the unique social and individual processes experienced by individuals with the condition of depression, and how a person's work characteristics can influence these processes. Although researchers have explored mental health themes and related topics, such as burnout, in remote work settings during the pandemic (e.g., Shockley, Allen, Dodd, & Waiwood, 2021), management literature will be able to better understand the unique impact of remote work on depressed individuals' work lives without the pandemic as a confounding context.

Second, this research leverages insights from the clinical literature to organizational scholars' increasing interest in mental health in the workplace. The fields of organizational psychology and clinical psychology have developed often independently of one another; constructs and measures across these two fields are typically different (Follmer & Jones, 2018; Kelloway et al., 2023). As a result, it is difficult to understand interdisciplinary phenomena due to the siloed nature of the literatures and their respective research foci (Follmer & Jones, 2018; Kelloway et al., 2023). This interdisciplinary project accordingly incorporates a clinical approach to depression as a condition and highlights psychological processes from clinical research that may be relevant to employees, while still approaching virtual work from a management

perspective. In doing so, this research will help the field of organizational behavior understand how virtual work impacts the psychological processes and behaviors of depressed individuals.

Finally, many organizational leaders in both private and public sectors face the important dilemma of the extent to which they should require remote or in-person work arrangements (Chatterjee, Chaudhuri, & Vrontis, 2022). Their decisions are immensely consequential; policies favoring remote work have implications for the well-being of families, particularly mothers (Kossek, Lautsch, & Eaton, 2006), as well as for hiring potential and more diverse talent pools (Cappelli, 2021; Edmondson et al., 2022). Existing practitioner-oriented guidelines for such policies acknowledge that remote work could uniquely benefit or uniquely harm certain social groups, such as Black employees, working mothers, and members of lower socio-economic status (see Edmondson et al., 2022). However, less emphasis has been given to how remote work policies might help or hinder individuals with common mental health conditions, such as depression. This paper seeks to illuminate the practical implications of asking a depressed worker to perform in a remote setting. In doing so, such research can help to better inform organizational decisions around remote work so to help mitigate any unique negative impacts that mainstream policies have on individuals with mental health conditions.

THEORETICAL DEVELOPMENT

Remote Work's Dual Pathways

Although the norm of working remotely was amplified by the Covid-19 pandemic, virtual work has become increasingly prevalent since the 1970's (Cappelli, 2021). Most often, virtual work refers to the act of performing one's job duties at home (as opposed to an office) by relying on technology, and it is synonymous with any of the following terms: "telecommuting, remote work, telework, distributed work, mobile work, work at home, and flex-place" (Gajendran &

Harrison, 2007). Following calls from Hill et al. (2022), and most recently Gajendran et al. (2024), I treat remote work as a continuum. Specifically, employees can vary in the intensity of their remote work, such that a lower “remote work intensity” involves a lower frequency of time spent working from home, and higher “remote work intensity” involves a higher frequency of time spent working from home (Gajendran et al., 2024). Additionally, following the precedent of Gajendran and Harrison (2007), I refer to remote workers as employees who work for traditional organizations, and exclude the following roles from my theorizing: independent contractors, self-employed craft-workers, solopreneurs, individual business owners, and gig workers.

Scholars exploring the impact of remote work have found that it is largely a ‘dual sided’ work characteristic, with both positive and negative effects on different facets employee well-being (Hill et al., 2022). For example, a review by Hill et al. (2022) finds that remote work can impact both “hedonic (related to feeling good) and eudaimonic (related to experiencing fulfillment and purpose) well-being outcomes” such as job satisfaction and social isolation, respectively. Aligned with this review, a recent meta-analysis (Gajendran et al., 2024) found that remote work intensity “had overall small but beneficial effects on multiple consequential employee outcomes including job satisfaction” driven by two opposing pathways: autonomy and isolation. In other words, working remotely is likely to be intrapersonally helpful, by allowing employees to better handle their personal goals and/or address their professional duties in a more autonomous way. However, working remotely is also likely to be interpersonally harmful, by hindering opportunities for relationship development and social connection.

Management literature’s exploration of remote work’s benefits, particularly those relating to increased autonomy, typically focuses on work-related perceptions of autonomy and how they may predict various facets of well-being (e.g., Kossek et al., 2006). However, it’s also possible

that remote work could impact an employee's psychological well-being through increased autonomy over nonwork or personal activities that can be more easily completed at home. I argue that because greater remote work involves greater time spent in the home environment, it is likely to increase activities that improve an employee's capacity for self-care, ultimately improving an employee's sense of job satisfaction. According to Luciani et al., (2022), "self-care is a complex and dynamic process performed throughout life of maintaining health through health-promoting practices and recognizing and managing symptoms when they occur." Self-care includes both autonomous "health promoting behaviors," such as self-directed efforts to improve physical activity, diet, as well as consulting behavior that may be more illness-directed, such as obtaining an adjusted prescription from a health care provider (Luciani, 2022).

Remote work intensity could increase an employee's engagement in self-care activities for several reasons. Working from home can increase physical "integration" (i.e., blending, overlapping, or intertwining) of an employee's work and personal life (Allen, Cho, & Meier, 2014; Ashforth, Kreiner, & Fugate, 2000; Kossek et al., 2006). Because of greater work-life integration, physical access to self-care activities, such as healthy eating or relaxation, may be more easily available in a home environment. As such, working remotely has the capacity to reduce work-to-nonwork conflict (i.e., the sense that work activities are preventing employees from engaging with their personal life, such as personal health needs) (Golden, Veiga, & Simsek, 2006). Virtual work has also been applauded for its ability to highlight the authenticity and shared humanity of employees; employees in work-from-home situations spend greater time with their families, pets, and homes (Cappelli, 2021; Edmondson et al., 2022). This environment could provide social reinforcement towards the engagement in personal health-related activities.

Engagement in greater self-care activities—particularly the ability to do so during the work week—may have important implications for an employee’s level of job satisfaction. Job satisfaction is an “an evaluative judgment of one's overall job” driven by judgements of various facets of one’s work, such as one’s supervisor, coworkers, pay and benefits, the work itself, etc. (Williams et al., 2024: 100). Job satisfaction has both affective and cognitive components (Williams et al., 2024), and it is substantially influenced by an individual’s disposition, and impacted by one’s mental health and personality traits (Judge, Heller, & Mount, 2002). Yet, evidence suggests that when organizations offer benefits and programs that encourage wellness and health promotions, these opportunities are predictive of increased job satisfaction (Hong, Ford, & Jong, 2024; Parks & Steelman, 2008). If increases in remote work intensity can similarly encourage activities involving wellness, such as self-care, it’s possible that remote work could indirectly contribute to greater job-satisfaction through the encouragement of self-care activities.

This could occur in a few ways. On the basis that self-care activities, such as physical activity, can generate greater positive affect (Pearce et al., 2022), then it’s possible that an employee’s improved emotional disposition itself could increase job satisfaction, because of job satisfaction’s sensitivity to an employees’ emotions. It’s also possible that positive emotions generated from self-care activities could “spillover” and enrich an employee’s sense of satisfaction with their work (Greenhaus & Powell, 2006). Additionally, because greater time spent working remotely may better enable the use of employee benefits, such as telehealth visits within the privacy of one’s own home, employees may be more satisfied with their benefits (component of job satisfaction) when they are able to use their wellness benefits while working remotely to improve self-care (Ledikwe et al., 2018). Indeed, prior research has found that

engaging in self-care strategies as an employee is associated with greater job satisfaction and lower turnover intentions (Acker, 2018).

Hypothesis 1a. Remote work intensity is positively associated with self-care activity.

Hypothesis 1b. Remote work intensity is indirectly positively associated with job satisfaction via self-care activity.

As previously established by a recent meta-analysis, remote work has several interpersonal drawbacks, such as overall increased social separation from other people at work, both in terms of physical separation, as well as feelings and cognitions pertaining to psychological separation (Gajendran et al., 2024). Gajendran et al. (2024) specifically find in their meta-analysis that greater remote work intensities lead to perceptions of isolation, defined as “employees’ feeling that they are out of touch with or do not feel socially connected to others at work” (Gajendran et al., 2024: 6). While management scholars often focus on physical and psychological separation from work-related sources of social support, such as coworkers (e.g., Becker, Belkin, Tuskey, & Conroy, 2022; Schinoff, Ashforth, & Corley, 2020), remote work could also decrease opportunities for social support from *nonwork* sources, such as friends. Like an employee’s spouse or family members, friends are a critical nonwork source of social support, which can help an employee feel a sense of belonging and responsiveness (for a review, see Bavik, Shaw, & Wang (2020). I believe that a greater intensity of remote work can decrease nonwork time spent with friends (including but not limited to friends who are colleagues), therefore reducing activities that generate social support, and eventually impacting an employee’s sense of loneliness.

One of the reasons this could occur is because remote work could reduce physical proximity to places where employees may meet up with their friends or social support networks,

such as bars, restaurants, and nightlife. Cappelli (2021) notes that changes in remote work intensity can impact nearby communities, particularly local economies. Employees who don't come into the office often experience changes in day-to-day routines, and may not spend as much time in major economic hubs (Cappelli, 2021). Without convenient access to locations that are conducive to spending time with peers, opportunities to engage in activities that generate social support could be hindered. Additionally, greater intensities of remote work could prevent the development of friendships that can be introduced through an employee's social network in their workplace. Because remote work limits opportunities for informal interaction with people who are not directly connected to an employee's job (Hill et al., 2022), opportunities for social support—such as a spontaneous happy hour after work—may be limited. Remote employees could therefore feel more isolated, not just from their coworkers, but from a social network of work-adjacent peers from whom social support could be gained.

As a result of decreased social support activity, it is possible that remote employees could feel a greater sense of overall (i.e., not workplace-specific) loneliness, in which they perceive themselves to be without companionship, isolated, and/or left out of activities that could be relationally beneficial (Russell, Peplau, & Cutrona, 1980). Loneliness can be defined as “the extent to which the individual emotionally feels socially isolated due to unpleasant experience or unmet needs in either quantity or quality of social relationships” (Ge, Yap, Ong, & Heng, 2017: 2). Critical to the context of depression (which I discuss in the next section), loneliness is bidirectionally related to depression, such that feelings of dissatisfaction with one's relationships may further amplify feelings of social rejection that are typical of depression; in short, feeling lonelier is likely to worsen depressive symptoms (Chen, Song, Lee, & Zhang, 2023).

It's likely that decreased social-support oriented activity is likely to further increase loneliness for several reasons. Less time spent with friends is likely to reduce social interactions in which individuals share their needs with one another (via conversations about work, their personal life, etc.). Less frequent sharing of one's needs with friends could result in reduced feelings of responsiveness, in which an individual perceives that their needs are not well understood (Reis, Crasta, Rogge, Maniaci, & Carmichael, 2017). Personal needs that are not well understood could further increase an employee's unmet needs, furthering a sense of loneliness (of which, unmet needs are a component (Ge et al., 2017)). Additionally, less time spent with friends could reduce perceptions of companionship, as friends who develop through shared experiences may grow to companions in a given situation, such as in the workplace (Schinoff et al., 2020). Indeed, evidence from population health research finds that social connectedness with friends is positively associated with overall loneliness (Ge et al., 2017).

Hypothesis 2a: Remote work intensity is negatively associated with social support activity.

Hypothesis 2b: Remote work intensity is indirectly positively associated with loneliness via decreased social support activity.

Depression During Remote Work

Employees with depression may have substantially different experiences working remotely than nondepressed employees. Depression is a clinically diagnosable mental health condition (also called a mental disorder or illness) that is centered around a persistent negative mood and hopelessness about oneself and the world, coupled with the simultaneous impairment of the cognitive, affective, and behavioral processes that are each needed to adequately interpret, regulate, and cope with ongoing stressors and daily challenges (Beck, 1979; Irons, 2014; Thapar,

Eyre, Patel, & Brent, 2022). Importantly, depression as a diagnosable mental health condition still sits on a continuum from low intensity/frequency of symptoms to a high intensity/frequency of symptoms (Beck, 1979). These symptoms can include “changes in weight and appetite, sleep disturbances, energy loss, emotions relating to worthlessness and guilt, concentration issues, indecisiveness, thoughts pertaining to death or even suicidal ideation” (Thapar, Eyre, Patel, & Brent, 2022: 617-618). Common measurement tools, such as the Patient Health Questionnaire (used in this paper’s studies), enable researchers to quantify the severity of an employee’s depression symptoms, such that higher scores on the scale indicate that the respondents are likely to be experiencing diagnosable depression condition (Kroenke, Spitzer, & Williams, 2001; Kroenke & Williams, 2009).

While research has not fully considered the impact of remote work among depressed individuals, existing research suggests that remote work might be a double-edged sword for depressed populations. With regards to interpersonal well-being, depressed individuals typically have behavioral tendencies that inhibit them from proactively finding social support (Hames et al., 2013), despite social support and quality relationships being critical to their recovery (Ibarra-Rovillard & Kuiper, 2011). Given that virtual work drastically reduces immediately available social support at work (Cappelli, 2021), it’s possible that depressed employees could fare worse when working remotely. On the other hand, working virtually could also be helpful. Research suggests that remote work settings could change the way a person copes with stress (Moeck et al., 2023). Given that virtual work enables greater privacy and often autonomy (Hill et al., 2022), it may be the case that depressed employees are more able to care for their depression symptoms and overall health while working remotely. Both processes could have implications for behavior during a depressed individual’s work hours and nonwork hours. In the following theoretical

development, I specifically argue that remote work interacts with depression symptoms to uniquely impact a depressed employee's interpersonal and intrapersonal well-being, ultimately impacting outcomes such as loneliness and job satisfaction, respectively.

In the face of remote work, a depressed employee's interpersonal well-being and intrapersonal well-being could be uniquely impacted. This potential interaction may be due to the following reason: genetic vulnerability to depression often intersects with the environment to influence how individuals respond to stressful and difficult situations (Beck, 2008; Caspi, Hariri, Holmes, Uher, & Moffitt, 2010; Fox & Beevers, 2016). In other words, in a group of individuals who are all more susceptible to depression, some environments can increase or even facilitate depression symptoms, while other environments may help reduce depression or even prevent depression symptoms. For example, research suggests that mothers may suffer more from postpartum depression when they have a lower socioeconomic status compared to a higher socioeconomic status (Mitchell et al., 2011). In this 'gene x environment' genre of research, the environment is typically conceptualized broadly, and it's often dichotomized into two different types of environments: supportive and aversive (Fox & Beevers, 2016). Nevertheless, it's possible that depression symptoms could interact with one's physical environment as well; research has found links between depression symptoms and the nature of one's home environment (i.e., the appearance of it, access to the outdoors) for some social groups (Birtchnell, Masters, & Deahl, 1988; Potter, Sheehan, Cain, Griffin, & Jennings, 2018). Given the number of hours employees spend working, it is not unreasonable to suggest that a physical work environment (i.e., remote work intensity) could also interact with depression in a way that helps or hinders employee behavior at work.

If depression and remote work interact with one another, how might an employee's experiences be affected? One possible answer to this question is that an employee's attentional biases and motivational processes could be affected. According to Fox and Beevers (2016)'s "Differential Sensitivity GxE Model," interactions between genetic vulnerability to depression and the environment can predict cognitive biases, which then contribute to long-term outcomes. Furthermore, individuals with depression may actually be *more* impacted by the environment compared to nondepressed individuals due to variation in genetic profiles: "those with a more 'malleable' genetic profile are highly sensitive to the affective environment so that negative environments will have a deleterious effect, whereas positive and supportive environments will enhance psychological functioning" (Fox & Beevers, 2016: 1658). In other words, a depressed employee's work environment could potentially impact their cognitive biases and subsequent motivational processes in a way that is helpful or harmful to their functioning.

One perspective that speaks to *how* virtual work could influence the interpersonal and intrapersonal pathways is the idea that remote work intensity can change a depressed employee's proximity to environmental cues. These cues could impact cognitive biases and motivational processes, affecting subsequent behavior. According to Trew (2011)'s "Approach and Avoidance in Depression" model, depressed individuals experience deficits in approach motivation. As a result, depressed individuals are less likely to proactively pursue activities that are goal-oriented and lead to rewards (Trew, 2011). Additionally, Trew (2011) notes that these motivational processes are sensitive to the environment. Specifically, when a person with depression experiences a "decrease in environmental reinforcement," such that they have limited "exposure to positive experiences" and limited "sources of positive reinforcement," they are likely to have worse consequences and experience greater levels of impairment in their day-to-day life (Trew,

2011: 1160). As such, the environmental reinforcement (or lack thereof) of a depressed person's work location could impact motivational processes and subsequent behavior.

When considering the notion that remote work intensity could play a role in this environmental sensitivity, it's likely that remote work exacerbates interpersonal well-being but ameliorates that intrapersonal well-being. From an *interpersonal* perspective, a virtual work environment removes a depressed individual from physical/visual cues pertaining to their coworkers. Without these cues, opportunities for social interaction and social support could be further diminished, which may have devastating impacts for depressed employees, who may already suffer from smaller social circles (Hames et al., 2013). However, from an *intrapersonal* perspective, the physical and visual privacy of a virtual environment could do the opposite—it could provide the environmental reinforcement to engage in greater self-care, enabling employees to better handle their internal distress and care for their health. I detail both arguments below.

Intrapersonal Well-being during Remote Work

I argue that a depressed employee working remotely is more likely to feel that they can handle any emotional or physical distress—and therefore engage in more self-care behaviors or activities—compared to a depressed employee working in-person. This could occur for several reasons, each tied to the idea that an employee is likely to perceive their virtual work environment differently than an in-person work environment. According to De Raedt & Hooley (2016)'s neurocognitive stress regulation framework, changes to the way that depressed individuals perceive the environment could “increase positive expectancies,” such that employees feel more confident and efficacious in the ability to handle distress or other physical or mental health challenges. This could occur for several reasons:

First, remote work typically involves greater levels of privacy (Hill et al., 2022). In a virtual setting, an individual with depression may feel more confident in being able to handle self-care related needs because they can deal with them privately. Although an employee working virtually may still experience distressing thoughts and images because of recurring cycles of negative affect and cognitions (Wittenborn, Rahmandad, Rick, & Hosseinichimeh, 2016), they might feel that they can handle this distress better if they are physically away from colleagues or supervisors. For example, a person experiencing depression while working remotely could likely cry during work hours without others knowing and then engage in a relaxation exercise or mental-health promoting activity to address that distress. Whereas in-person employees are likely to experience pressure to regulate their emotions in a work-appropriate manner (Kim, Bhawe, & Glomb, 2013), virtual employees may be able to process emotions differently compared to when they are physically near other employees. In other words, depressed individuals may feel that they have more physical and emotional room to deal with distress (e.g., go for a walk or jog during a break) when they don't simultaneously feel that they have to adhere to the norms of in-person work.

Second, in virtual settings, an individual with depression may have more personal resources at their disposal to help them cope with distress and care for their health needs. For example, virtual employees could more easily and privately take a break to make a snack, rest their eyes, or text a friend for support, etc. Activities that enable self-care and recovery can promote positive emotion and replenish energy so individuals can perform better after they return to work (Bennett, Gabriel, & Calderwood, 2020; Kim, Park, & Niu, 2017). Employees could also spend more time gaining support from pets and family/roommates, if their virtual work environment involves working from home (Hoffman, 2021). These types of behaviors

function similarly to the positive distractions suggested by Nolen-Hoeksema, Wisco, & Lyubomirsky (2008), which can help depressed individuals respond to their own depression in a way that is more beneficial and less maladaptive. When individuals take active micro-breaks after experiencing strain (Krajewski, Wieland, & Sauerland, 2010), these activities can improve emotion (Hunter & Wu, 2016; Kim et al., 2017) and help people recover so they can be more energized and more easily focused after returning to work.

Third, in virtual settings, an individual with depression may feel that they can take better care of their own well-being because their workday is likely to feel more predictable. Virtual work settings typically have fewer work-related distractions or disruptions (Hill et al., 2022). For example, while a person working in an office could be more easily interrupted by their coworker or boss walking by, a person working virtually is less likely to have spontaneous informal social interactions (Hill et al., 2022; Cappelli, 2021). Because of the lower possibility of work distractions or intrusions, it may be easier to predict the course of the workday and feel in control over the events that ensue when working. Existing research supports the notion that virtual work could impact a depressed individual's regulatory process. During the pandemic, individuals in lockdown reported that they engaged in different emotion regulation strategies compared to those not in lockdown (Moeck et al., 2023). For example, individuals were able to better distract themselves from distressing thoughts and images (Moeck et al., 2023). It's possible that the predictability associated with remote work arrangements could be especially beneficial in the context of depression; allowing individuals to pre-emptively engage in self-care activities, such as physical activity or relation activities that could help alleviate workday distress. The ability to engage in more of these activities during remote workdays may facilitate greater satisfaction or enjoyment during one's work week, therefore promoting greater job satisfaction.

Hypothesis 3a: The positive association between remote work intensity and self-care activity is stronger when depression symptoms are higher vs. lower.

Hypothesis 3b: The positive indirect effect of remote work on job satisfaction via self-care activity is stronger when depression symptoms are higher vs. lower.

Interpersonal Well-being during Remote Work

I argue that for an employee experiencing depression, higher intensities of remote work are especially harmful to their interpersonal well-being, leading to less engagement in activities that generate social support and higher levels of loneliness. This is because remote work could act as a barrier between a depressed individual and the environmental reinforcement they need to have high-quality relationships that enable social support and reduce loneliness. This could occur in a few different ways.

First, remote work may exacerbate a depressed individual's internal proclivities towards avoidance (Trew, 2011). Virtual work is similar to experiences of avoidance and inhibition because it involves less social connection (Hill et al., 2022), lower event attendance outside the home (Choudhury, Foroughi, & Larson, 2021), and less engagement with new activities or learning (Cappelli, 2021). For a depressed individual, social interaction—both formal and informal—can be especially beneficial for well-being (Ibarra-Rovillard & Kuiper, 2011; Lakey & Orehek, 2011). The absence of informal workplace social interaction for a depressed person may be particularly detrimental. Because depressed employees are likely to have insufficient motivation to develop friendships and proactively create opportunities for social support (Trew et al., 2011), they may rely on extrinsic motivators from within the workplace to spend time with friends from work. Additionally, a depressed employee may rely on other extrinsic factors tied to one's work, such as location-related conveniences that accompany in-person work (e.g., a nearby

restaurant becomes a place for social-meetups after work). These environmental cues may be nonexistent when working remotely, and drastically hinder opportunities for social support for those who rely on them.

Second, virtual work limits the quantity and quality of communication with colleagues (Hill et al., 2022). By definition, virtual work involves spending working hours away from both colleagues and the physical presence of an employer (Hill et al., 2022). During this time, informal interaction with colleagues tends to be severely limited (Cappelli, 2021). For example, a person working remotely may not run into a colleague in the hallway or in the breakroom and share how their day is going or what problems they are currently encountering. Also, in situations where a virtual employee must handle a work stressor, they may be less able to easily access peer support and coworker advice (Jo, Harrison, & Gray, 2021). The inability to quickly check-in with a coworker during difficult situations could prevent coworkers from understanding a depressed individual's needs. Alternatively, virtual coworkers may not witness nonverbal cues from the depressed employee and be able to offer support. In either case, remote work may especially hinder the development of friendships and subsequent opportunities for social support for a depressed employee.

Evidence from both clinical research and management research supports the idea that a virtual work setting could further worsen a depressed employee's interpersonal well-being. Scholars have found that depressed individuals are likely to feel unsupported when these individuals are shy or antisocial, and thus spend more time away from peers (Joiner, 1997). During the pandemic, Chong, Huang, & Chang (2020) found that perceptions of social support interact with emotional exhaustion to predict next day withdrawal. This finding is valuable to mention as it highlights the cyclical and bidirectional nature of variables pertaining to general

mental health, social interaction, and quality of social relationships. Taken as a whole, it is likely that less engagement in activity that facilitates social support, as a result of greater remote work, then exacerbates a depressed employee's experience of loneliness and relational stress.

Hypothesis 4a: The negative association between remote work intensity and social support activity is stronger when depression symptoms are higher vs. lower.

Hypothesis 4b: The negative indirect effect of remote work on loneliness via social support activity is stronger when depression symptoms are higher vs. lower.

OVERVIEW OF METHODS

Testing this paper's hypotheses highlights several methodological challenges, which I seek to address across three studies. First, the desire to understand the unique impact of remote work when an employee is experiencing higher levels of depression symptoms, particularly non-mild depression symptoms, requires a nuanced sampling approach. Similarly, such samples also require ample variation in remote work intensity to test the hypothesized interactions. I accordingly use large archival datasets for Study 1a, 1b, and Study 2, because archival data typically contains sufficient power to detect small effect sizes (Barnes, Dang, Leavitt, Guarana, & Uhlmann, 2018; Heng, Wagner, Barnes, & Guarana, 2018); and the effects of remote work in this study are likely to be small, given prior research on remote work and well-being (Gajendran et al., 2024). Although these three datasets provide several opportunities (use of multiple analytic approaches afforded by large samples, exploration of nonlinear relationships between hypothesized variables, and replication testing), the potential insights from these datasets are limited by their cross-sectional nature. I accordingly use a multi-wave dataset for Study 3, collected through Cloud Research Connect.

STUDY 1A

For both Study 1a and Study 1b, I used data from the National Well-being Survey (Monnat, 2021). The National Well-being Survey launched in 2021 by collecting its first cross-section of responses towards the end of the COVID-19 pandemic. These responses were collected from adults ages 18-64 living in the United States (50 states and D.C.). Although the principal investigators of the National Well-being Survey (NWS) sought to create a demographically representative sample in terms of age, race, and gender, the investigators intentionally oversampled nonmetropolitan residents to better understand the experiences of individuals in rural locations relative to urban locations. To achieve this sample, participants were recruited for the NWS via demographic and location quotas created through Qualtrics Panels; individuals who were eligible for NWS participation were invited to opt-in to an extensive online questionnaire. The one-wave survey contained questions pertaining to various facets of well-being (e.g., mental health, physical health, social relationships). Data and methodology from the National Well-being Survey is publicly available online: <https://www.icpsr.umich.edu/web/ICPSR/studies/38964>. Data from the National Well-being Survey has previously been used in publications reporting on the mental-health related experiences in working adults (e.g., London, Monnat, & Gutin, 2025).

Data from the National Well-being Survey is available in three separate cross-sections (2021, 2022, and 2023). However, only the 2022 and 2023 cross-sections had a variable that measured a person's work location (e.g., fully remote, partially remote, in-person). I accordingly used the NWS 2022 cross-section for Study 1a, and I tested for replication of effects using the NWS 2023 cross-section for Study 1b. Although data spanning multiple years is typically included within a single dataset while controlling for the year of observations (e.g., Ong, 2021), examining the 2022 and 2023 cross-sections independently of one another may be insightful in

this context as return-to-office mandates and work-from-home norms following the Covid-19 pandemic were shifting abnormally throughout this time period (Hsu, 2023). Following precedent of other archival research (e.g., Ryu, Gonzalez-Mulé, & O’Boyle, 2023), I did not obtain a review from an Institutional Review Board because I did not have any contact with any participants from the National Well-being Survey. I did not pre-register Study 1a or 1b.

Sample

The NWS 2022 cross-section included data from 7,644 participants at a single time point. Of the 7,644 participants, I selected individuals who were not self-employed, and who were working full-time (at least 35 hours), and working in a single job. This subset of participants (N = 2,493) had an average age of 41, 38% identified as female, and identified as the following: White (72.7%), Hispanic or Latino/a/x (17.5%), Black (16.8%), Asian or Pacific Islander (6.9%), Asian (2.1%), other (3.8%), or don’t know (<1%).

Measures

Depression Symptoms. Depression Symptoms were measured using the PHQ-2, a short clinical measure of a person’s depressed mood and level of anhedonia, commonly used in population health research (Levis et al., 2020). Participants were asked how often (0=not at all, 1=several days, 2=more than half the days, 3=nearly every day) in the past two weeks they were bothered by “feeling down, depressed, or hopeless” or “having little interest or pleasure in doing things” (Kroenke & Williams, 2009; Levis et al., 2020). Although the PHQ-2 as a short measure is insufficient for diagnosing a depression condition, it is regarded to be an effective first-step in the screening process because it measures both depressed mood (a necessary but insufficient indicator of a minor or major depression condition) as well as anhedonia (a depression-specific behavioral symptom typically present only when individuals experience depression as a minor or

major condition) (Levis et al., 2020). In other words, higher scores on the PHQ-2 provides some indication that an individual is experiencing depression in a manner that is impairing their cognitive, affective, and behavioral processes, warranting therapeutic treatment.

Remote Work Intensity. Participants were asked to categorize their current work setting by indicating whether they (a) “work at a setting or a location outside my home,” (b) “sometimes work from home and sometimes work at a location outside my home (also referred to as hybrid),” or (c) “work from home (also referred to as remote work or telework). Although remote work intensity is considered to be a continuum which should be measured as a scale or as a percentage (Hill et al., 2022), prior research has also treated remote work as a category (e.g., Kossek et al., 2006) and I therefore refer to each individual setting in supplemental analysis as “In-Person,” “Hybrid,” and “Fully Remote.”

Social Support Activity. I operationalized social support activity by using one of NSW's questions pertaining to frequency of engagement in different social activities. Participants were asked how frequently in the last 12 months did they “get together socially with friends or relatives” (1=never, 2=once or twice, 3=a few times, 4=about once or twice a month, 5=at least once a week).

Self-Care Activity. I operationalized self-care activity by using two of NSW's questions pertaining to frequency of engagement in activities for physical health. Participants were asked the following questions: “During the past 30 days, how often did you engage in (a) vigorous physical activity for at least 30 minutes (activity intense enough to raise your heart rate and work up a sweat, e.g., running or lifting heavy objects), (b) moderate physical activity for at least 30 minutes (e.g., taking a walk or using a vacuum cleaner).” Participants responded on a scale

measuring frequency (1=never, 2=once or twice, 3>About once per week, 4=Several times a week, 5=Everyday) which were totaled for analysis.

Job Satisfaction. Participants were asked the following question: “In general, how satisfied are you with your current job” (1=very unsatisfied, 2=somewhat unsatisfied, 3=neither satisfied nor unsatisfied, 4=somewhat satisfied, 5=very satisfied).

Loneliness. Loneliness was measured using three items from the UCLA Loneliness Scale (Russell et al., 1980). Participants were asked: “How often do you feel (a) you lack companionship, (b) left out, and (c) isolated from others?” (1=hardly ever and 3=often; $\alpha = .83$).

Demographics and Control Variables. This research requires the consideration of several different control variables, as many factors could be influencing both the predictor variables (remote work intensity, depression) and the outcome variables (self-care activity and social-support activity). Because prior literature has found that remote work may be directly associated with reduced depression symptoms for mothers (Kossek, Lautsch, & Eaton, 2006; Shepherd-Banigan et al., 2016), I controlled for demographics and the social characteristics of the household (presence of children, spouse, etc.). Additionally, because remote jobs may be qualitatively different from in-person jobs, I controlled for other job characteristics, such as physical job demands, that could influence not only the person’s mental health, but also their remote work intensity and subsequent outcomes. Additionally, to account for the possibility that any effects of remote work on well-being outcomes could be attributed to increased levels of temporal flexibility that are often associated with remote work (Gajendran et al., 2024; Kossek et al., 2006), I included variables that measure the extent to which employees are able to adjust when they start their work day and if they can take a few hours off. I also included other mental health conditions, such as anxiety conditions and PTSD, to better understand if depression is

uniquely predictive of the outcomes in my theoretical model. Understanding the unique impact of depression, as opposed to other mental health conditions, may be important to the growth of mental-health related literature in management (Rosado-Solomon, Koopmann, Lee, & Cronin, 2023). Finally, I controlled for an employee's location (on the rural-urban continuum) to address the possibility that effects could be attributable to the NWS's oversampling of participants in rural areas. Measures can be found in the NWS codebook:

<https://www.icpsr.umich.edu/web/ICPSR/studies/38964>.

Results

Descriptive statistics and correlations are presented in Table 1. I first conducted a confirmatory factor analysis using the Lavaan package in R. The six-factor model resulted in good fit indices ($\chi^2 = 7056.815$, CFI = .996, RMSEA = .022, SRMR = .013); the six-factor model provided a better fit than a five-factor model in which the items for loneliness and depression (both of which could be considered to be indicative of dispositional psychological distress) were loaded onto a single factor ($\Delta\chi^2 < .01$). I then tested the entire theoretical model (according to Figure 1) using structural equation modeling in R via the Lavaan package, in which I conducted bootstrapping analysis with 5,000 replications (Preacher & Hayes, 2008). Fit indices for this theoretical model were poor ($\chi^2 = 4980.40$, CFI = .09, RMSEA = .47, SRMR = .20), suggesting that the hypothesized relationships may not adequately represent the data. Results for each individual hypothesis, without controls, were as follows:

First, I tested the main effects and indirect effects. Hypothesis 1a predicted that remote work intensity is positively associated with self-care activity. The positive relationship between remote work intensity and self-care activity was not significant ($b = .11$, $p = .12$), and therefore did not support Hypothesis 1. Hypothesis 1b predicted that remote work intensity is indirectly

positively associated with job satisfaction via self-care activity. There was no significant indirect effect of remote work intensity on job satisfaction via self-care activity (*indirect effect* = -0.00, *SE* = .00, 95% confidence interval [CI] [-.01, .00]). Hypothesis 2a predicted that remote work intensity is negatively associated with social support activity. The negative relationship between remote work intensity and social support was significant ($b = -.15, p = .00$), supporting Hypothesis 2a. Hypothesis 2b predicted that remote work intensity is indirectly positively associated with loneliness via social support activity. There was a significant positive indirect effect of remote work intensity on loneliness via social support activity (*indirect effect* = 0.03, *SE* = .01, 95% confidence interval [CI] [.00, .05]).

Next, I tested the moderation effects. Hypothesis 3a predicted that the positive association between remote work intensity and self-care activity is stronger when depression symptoms are higher vs. lower. There was indeed a significant interaction between remote work intensity and depression symptoms predicting self-care activity, however the effect of the interaction term was negative ($b = -.09, p = .02$). Hypothesis 3a was therefore not supported. Hypothesis 3b predicted that the positive indirect effect of remote work intensity on job satisfaction via self-care activity is stronger when depression symptoms are higher vs. lower. The indirect effect of remote work intensity on job satisfaction via self-care activity was not significant at lower (*indirect effect* = 0.01, *SE* = .00, 95% confidence interval [CI] [-.00, .01]) or higher (*indirect effect* = -0.01, *SE* = .00, 95% confidence interval [CI] [-.02, .00]) levels of depression symptoms. The difference between these indirect effects was marginally significant (*difference* = .01, 95% CI [.00, .03]). Hypothesis 3b was largely not supported.

Hypothesis 4a predicted that the negative association between remote work intensity and social support activity is stronger when depression symptoms are higher vs. lower. There was

indeed a significant interaction between remote work intensity and depression symptoms, however the interaction term was positive ($b = .06, p = .01$). Hypothesis 4a was therefore not supported. Hypothesis 4b predicted that the negative indirect effect of remote work on loneliness via social support activity is stronger when depression symptoms are higher vs. lower. The indirect effect of remote work intensity on loneliness via social support activity was significant at lower (*indirect effect* = 0.02, $SE = .00$, 95% confidence interval [CI] [.03, .10]) but not higher (*indirect effect* = -0.01, $SE = .02$, 95% confidence interval [CI] [-.05, .03]) levels of depression symptoms. The difference between these indirect effects was significant (*difference* = .07, 95% CI [.02, .13]). However, Hypothesis 4b remains unsupported because results were directionally inconsistent with the prediction.

Supplemental Analysis. The results from Study 1a highlighted multiple opportunities for further analysis to better interpret effects. First, indicators of fit suggest that the theoretical model could be improved. Second, although the large sample size of the NWS is advantageous because it provides variation in both depression symptoms and remote work intensity, over 70% of the individuals in the sample worked in primarily in-person jobs, while 14% worked in “hybrid” (both in-person and work-from-home), and 15% worked primarily from home. This distribution likely contains observations from employees who may not be able to work remotely even if they should wish to do so. Without further analysis, it is therefore difficult to conclude the extent to which remote work could be impactful to depressed employees when such an option is available. Moreover, it is difficult to understand, further analysis, the level of remote work intensity (i.e., hybrid vs. fully remote) that could be impacting depressed employees’ experiences. Additionally, although the analysis thus far has assumed that remote work intensity has a linear relationship with the outcomes in the model, a review of prior remote work research suggests that this may

not always be the case, and remote work intensity may have a u-shaped or j-shaped relationship with relevant outcomes (Hill et al., 2022).

In order to address the possibility of nonlinear relationships while also exploring the aforementioned opportunities for further analysis, I tested a more parsimonious model by testing only the hypothesized interaction effects (Hypothesis 3a and Hypothesis 4a) using the propensity score matching as an analytic method, using the R package MatchIt (Ho, Imai, King, & Stuart, 2011)). Using the nearest neighbor matching method (Austin & Stuart, 2017), I matched remote employees to in-person and hybrid employees based on several control variables, such as having a previous diagnosis for depression. Doing so seeks to minimize selection bias when a randomized experiment is not feasible, and it therefore better isolates the effect of a “treatment,” which in this case, is the effect of remote work (Hong, 2012). The results, with controls included in the regression equations, are as follows:

To better understand if the path analysis findings were driven by behavioral tendencies associated with partially-remote, or “hybrid” arrangements (compared with in-person arrangements), I created a matched sample ($N = 676$) in which the treatment consisted of 338 hybrid employees and the control consisted of 338 matched in-person employees. I tested the interaction between hybrid work and depression symptoms to predict self-care activity. Unlike the results from the path analysis, the interaction between hybrid work and depression symptoms did not significantly predict self-care activity ($b = -.09, p = .40$). Next, I tested the interaction between hybrid work and depression symptoms to predict social support activity. Unlike the results from the path analysis, the interaction between hybrid work and depression symptoms was not significant ($b = -.04, p = .46$).

To better understand if the path analysis findings were driven by behavioral tendencies associated with fully remote arrangements (compared to partially remote or “hybrid” arrangements), I created a second matched sample ($N = 676$) in which the treatment consisted of 338 fully remote employees and the control consisted of 338 matched hybrid employees. I tested the interaction between fully remote work and depression symptoms to predict self-care activity. Inconsistent with the results from the path analysis, there was no significant interaction between fully remote work and depression symptoms predicting self-care activity ($b = -.09, p = .430$). Next, I tested the interaction between fully remote work and depression symptoms to predict social support activity. Somewhat consistent with the results from the path analysis, there was a marginally significant interaction between fully remote work and depression symptoms ($b = .10, p = .095$).

To better understand if the path analysis findings were driven by behavioral tendencies associated with fully remote arrangements (compared to in-person arrangements), I created a second matched sample ($N = 702$) in which the treatment consisted of 351 fully remote employees and the control consisted of 351 matched in-person employees. I tested the interaction between fully remote work and depression symptoms to predict self-care activity. Consistent with the results from the path analysis, there was a significant interaction between fully remote work and depression symptoms predicting self-care activity ($b = -.26, p = .018$). Next, I tested the interaction between fully remote work and depression symptoms to predict social support activity. Consistent with the results from the path analysis, there was a significant interaction between fully remote work and depression symptoms ($b = .14, p = .014$). These results suggest that the interaction results found in the initial path analysis may be driven primarily by the

experiences of individuals in fully remote work settings, as compared to those in full in person settings.

Discussion

Study 1a provides preliminary evidence that in the face of depression symptoms, working remotely could be uniquely impactful to engaging in self-care or social support activities; this possibility is important because engaging in such activities could be relevant to employees' trajectories for future depression symptoms. However, the findings in Study 1a were largely inconsistent with my hypotheses. Importantly, although prior research has found that remote work intensity benefits employee well-being by increasing autonomy (Gajendran et al., 2024) potentially enabling greater time and flexibility for engagement in well-being activities, Study 1a indicates that more depressed employees may *not* experience this benefit. Additionally, prior research has also found that remote work intensity leads to greater isolation, particularly from one's coworkers (Gajendran et al., 2024). Although the main effects and indirect effects from Study 1a are aligned with prior research, the moderation effects I found ran counter to my hypotheses. Study 1a specifically finds that while a less depressed employee may engage in less social support activity due to remote work, this may not be the case for a more depressed employee. Without replicating these findings, it is unknown as to whether the counterintuitive interaction effects found in Study 1a are due to inadequate theorizing or due to methodological issues relating to the sample. For example, although the NWS 2022 data was not collected during the Covid-19 pandemic lockdown, there may be covid-era factors that are influencing the effects seen in Study 1a. I accordingly seek to replicate my findings from Study 1a in the NWS 2023 cross-section (Study 1b), which is further temporally removed from the pandemic, but still contains a robust proportion of employees working remotely.

STUDY 1B

Sample

The NWS 2023 cross-section included data from 7,105 participants at a single time point. Consistent with the NWS 2022, I selected individuals who were not self-employed, and who were working full-time (at least 35 hours), and working in a single job. This subset of participants ($N = 2,580$) had an average age of 40, 43% identified as female, and identified as the following: White (73.0%), Hispanic or Latino/a/x (20.1%), Black (15.0%), Asian or Pacific Islander (6.9%), Asian (<1%), other (5.6%), or don't know (<1%).

Results

Measures for Study 1b were identical to those used in Study 1a. Descriptive statistics and correlations can be found in Table 2. Path analysis results can be found in Table 3, and were consistent with the path analysis results from Study 1a with the following exceptions: Unlike the results from Study 1a, Study 1b found a significant negative indirect effect of remote work intensity on job satisfaction via self-care activity ($b = -.01$, $SE = .00$, 95% confidence interval [CI] $[-.02, -.00]$). Because the indirect effect was negative, results do not support Hypothesis 1b. Also inconsistent with Study 1a, Study 1b did not find a significant positive indirect effect of remote work intensity on loneliness via social support activity (*indirect effect* = 0.00, $SE = .00$, 95% confidence interval [CI] $[-.01, .01]$). Therefore, although Hypothesis 2b was supported in Study 1a, it was not supported in Study 1b.

Additionally, although Study 1a found a significant interaction between remote work intensity and depression symptoms predicting self-care activity, this interaction was no longer significant in Study 1b ($b = -.04$, $p = .36$). Because the theorized model also yielded a poor fit to the data ($\chi^2 = 5165.18$, $CFI = .09$, $RMSEA = .47$, $SRMR = .20$), I also tested only the interaction

effects (Hypothesis 3a and Hypothesis 4a) using propensity score matching with controls, as in Study 1a. In a matched sample comparing fully remote employees with in-person employees ($N = 504$), the interaction predicting social support activity was significant ($b = .13, p = .018$) and directionally aligned with findings from Study 1a. However, in the same matched sample with controls, the interaction predicting self-care activity was no longer significant ($b = .08, p = .47$).

Discussion

Study 1b provided an opportunity to test for replication. In doing so, its results provided additional support for the possibility that remote work may not impact depressed employees in the same way that it impacts the average employee. Specifically, both Study 1a and 1b find that remote work may not necessarily hinder opportunities for social support, as it does for the average employee. Interpersonal theories of depression may provide an explanation for this finding. Clinical scholars have previously found that when a person experiences depression, their social circle is likely to become smaller, such that a depressed individual may only feel comfortable interacting with a small group of close friends or family members (Hames et al, 2013). Additionally, interpersonal therapy perspectives suggest that because depressed individuals are likely to experience greater relational stress, adjustments that temporarily relieve that stress could be beneficial (Lipsitz & Markowitz, 2013). From this perspective, remote work, while interpersonally harmful for the average employee, might even have a beneficial or neutralizing influence for employees experiencing depression. However, because the measure for social support activity conflates activity with friends with activity with relatives, the findings from Study 1a and Study 1b are still unclear.

Whether remote work has any unique harm for employees with depression cannot be concluded from Study 1a or 1b, due to the inconsistent results pertaining to self-care activity,

which was operationalized in these studies through measures of physical activity. It could be possible that remote work impacts other types of self-care activities, or overall health and wellness behaviors at large. If this is the case, it remains unclear how to generate practical implications from these results given the measure for remote work intensity provided in the NWS data. Specifically, if self-care activity is indeed harmed by remote work, then the three-item scale prevents the ability to conclude how many days per week an employee would need to change their work location in order to experience meaningful changes in self-care activity. The next study, which utilizes data from the General Social Survey, seeks to address the aforementioned measures-related limitations.

STUDY 2

Following recommendations to assess replicability of archival findings (Barnes et al., 2018; Heng et al., 2018), I analyzed a second archival database: the General Social Survey (also called the GSS). Unlike the National Well-being Survey, the GSS has been collecting cross-sections of data for many years and has been used for scholarly analysis in several different disciplines, including management and applied psychology (e.g., Dierdorff & Ellington, 2008). The General Social Survey ([https://gss.norc.org/](https://gss.norc.umd.edu/)) collects data every two years, and although the data is not longitudinal, analysis of cross-sections at different time points allow researchers to understand and add questions pertaining to changing societal trends.

For Study 2, I utilized the GSS 2022 cross-section. Like the NWS, the GSS 2022 contains a high prevalence of responses from employees with remote work arrangements, allowing for the opportunity to partially assess replicability of effects seen in Study 1a and 1b, while using a more precise measure for remote work intensity. Unlike the NWS data, the GSS data does not contain an oversampling of individuals in rural areas and instead aims to obtain a nationally

representative sample of responses obtained via in-person interviews and web responses.

However, because the GSS 2022 data does not contain the same variables as the NWS data, Study 2 is unable to test the entire theoretical model, but is able to test Hypotheses 1a, 2a, 3a, and 4a.

Sample

The GSS 2022 cross-section included data from 3,544 participants at a single time point. Of these participants, I selected individuals who reported having worked full-time in the prior week, were not self-employed, and reported working in a traditional job as a permanent employee (as opposed to an independent contractor). This subset of participants (N = 1,290) had an average age of 42, 51% identified as female, and identified as the following: White (72.0%), Black (15.8%), or Other (12.2%). While this subset of participants answered questions pertaining to remote work, depression, self-care activity, and job satisfaction, only a smaller subset (N=889) answered questions pertaining to social support activity because the relevant items were not included in all questionnaires (referred to as “ballots” within the GSS).

Measures

Remote Work Intensity. Participants indicated the frequency at which they worked remotely in response to the following question: “How often do you work at home as part of your job? (1=never, 2=A few times a year, 3=About once a month, 4=about once a week, 5=More than once a week, 6=Worker works mainly at home).” Because the temporal distance between each frequency along the scale differed, I transformed this scale by approximating the percentage of remote work hours associated with each item, such that (Never=0 percent, A few times per year=1 percent, About once a month=5 percent, About once a week=20 percent, More than once per week=60 percent, Mainly at home=100). Using a percentage of time spent working remotely

as a variable is consistent with best practices for measuring remote work (Hill et al, 2022). For supplemental analysis, I computed three variables indicating categories of remote work intensity consistent with those measured in Study 1a and 1b. Specifically, participants who indicated that they work “mainly at home” were categorized as “Fully Remote.” Participants who indicated that they work from home “about once a week,” or “more than once a week” were categorized as “Hybrid.” Participants who indicated that they worked from home “About once a month,” “A few times a year,” or “Never” were categorized as “In-Person” to be consistent with Gajendran et al. (2024)’s definition of Remote Work Intensity “ranging from one or two days a week to full-time remote work” (1).

Depression Symptoms. Participants answered two questions that form the PHQ-2, a short measure for depression (Levis et al., 2020) also used in Study 1a and Study 1b. The specific questions asked in the GSS were: “Over the last 2 weeks, how often have you been bothered by the following problems: (a) Feeling down, depressed, or hopeless? (b) Little interest or pleasure in doing things?” (1=Not at all, 2=Several days, 3=More than half the days, 4=Nearly every day).”

Self-Care Activity. Participants answered a single question: “During the past 30 days, for about how many days did your poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?” Responses were numeric, 0=0 days, 1=1 day...[...]29=29 days, 30=30 days. I reverse scored the answers so that higher numeric responses were indicative of more days with self-care activities.

Social Support Activity (only Ballot A & B; N=889). Consistent with Study 1, I measured social support activity using an item pertaining to the frequency of time spent with friends. Participants were asked: “How often do you do the following things... Spend a social

evening with friends who live outside the neighborhood?” (1=Never, 2=Once a year, 3=Several times a year, 4=Once a month, 5=Several times a month, 6=Several times a week, 7=Almost daily).

Demographic and Control Variables. I considered several control variables from the GSS variable bank to statistically account for factors that could be influencing both the predictor and outcome variables. Consistent with Study 1a and 1b, I included demographic controls and social household characteristics (e.g., marital status, children at home) which could be influencing both the desire to work at home as well as interpersonal and intrapersonal outcome while working at home. I controlled for whether the respondent has an existing or prior depression condition, which could be influencing both their use of remote work as an accommodation while also influencing their subsequent levels of engagement in social-support activity or self-care activity. Unlike the NWS, the GSS 2022 cross-section contained variables pertaining to the social characteristics of the participant’s job, such as participating in a work team, decision making participation, and supervisor status. Social job characteristics can determine the extent to which an employee can or desires to work remotely (Cappelli, 2021), while also influencing the development of relationships and engagement in social support activity (e.g., spending time with friends from work). Finally, participants from the GSS 2022 cross-section who indicated that they worked remotely (even to a small extent, such as a few days per year), answered a question about whether their engagement in remote work was required by their organization; controlling for this requirement may help account for the possibility that changes in social-support activity or self-care activity could be better explained by an employee’s ability to choose where they work as opposed to the location itself. Measures

for each variable can be found in the GSS Data Explorer:

<https://gssdataexplorer.norc.umd.edu/user/project>.

Results

Table 5 contains correlations for Study 2, and Table 6 contains regression results. I analyzed the two pathways of the theoretical model separately because the social support activity variable was only collected from a subset of participants (N=889) compared with the remaining variables (N = 1,290). I used OLS regression to test the following hypotheses. Hypothesis 1a predicted that remote work intensity is positively associated with self-care activity. The effect of remote work intensity on self-care activity was not significant with ($b = .00, p = .376$) or without controls ($b = .00, p = .729$). Therefore, Hypothesis 1a was not supported. Hypothesis 2a predicted that remote work intensity is negatively associated with social support activity. The effect of remote work intensity on social support activity was marginally significant with controls ($b = .00, p = .083$) and significant without ($b = .00, p = .020$). However, the effect was not directionally consistent with Hypothesis 2a. Therefore, Hypothesis 2a was not supported.

Hypothesis 3a predicted that the positive association between remote work intensity and self-care activity is stronger when depression symptoms are higher vs. lower. The interaction between remote work intensity and depression symptoms in predicting self-care activity was not significant with controls ($b = -.00, p = .872$) and without ($b = -.00, p = .826$). Hypothesis 3a was therefore not supported. Hypothesis 4a predicted that the negative association between remote work intensity and social support activity is stronger when depression symptoms are higher vs. lower. The interaction between remote work intensity and depression symptoms was not significant with controls ($b = .00, p = .254$) or without ($b = .00, p = .223$). Therefore, Hypothesis 4a was not supported.

Supplemental Analysis. I conducted two supplemental analyses to better understand the findings from the GSS data. I explored the possibility of a curvilinear effect by including remote work intensity as a quadratic term in the main effects models and the interaction models. The main effect of remote work intensity (as a quadratic term) on self-care activity was not significant with controls ($b = -.00, p = .424$) or without ($b = -.00, p = .267$). The interaction with the quadratic term was not significant with controls ($b = .00, p = .935$) or without ($b = -.00, p = .952$). The main effect of remote work intensity (as a quadratic term) on social support activity was marginal with controls ($b = -.00, p = .068$) and not significant without ($b = -.00, p = .121$). The interaction with the quadratic term was not significant with controls ($b = .00, p = .202$) or without ($b = .00, p = .192$).

Because Study 1a's findings suggested that the interaction effects in the theoretical model may be driven by high intensities of remote work as compared to in-person work, I conducted propensity score matching with the GSS sample. I created a matched sample ($N = 382$) in which the treatment consisted of 191 fully remote employees and the control consisted of 191 matched in-person employees. I tested the interaction between fully remote work and depression symptoms to predict self-care activity. Consistent with the results from Study 1a, there was a significant interaction between fully remote work and depression symptoms predicting self-care activity with controls ($b = -.79, p = .016$). Next, I tested the interaction between fully remote work and depression symptoms to predict social support activity. Unlike the results from Study 1a and 1b, there was no significant interaction between fully remote work and depression symptoms ($b = .15, p = .289$).

Discussion

Findings from Study 2 provided further evidence that the influence of remote work—particularly for an employee experiencing higher levels of depression symptoms—is likely to be minimal, and not practically meaningful. Study 2 did not replicate the findings pertaining to social support activity that were found in both Study 1a and 1b. However, supplemental analysis in Study 2 found that fully remote work arrangements, as compared to fully in-person work arrangements, are likely to be detrimental to a depressed employee’s self-care activity, which is consistent with Study 1a, but not Study 1b. Because the measures for self-care activity varied greatly across Study 1a, 1b, and Study 2, I conducted a Study 3 with improved measures to better understand the extent to which remote work may influence self-care behaviors (if at all) in the face of depression.

STUDY 3

The objective of Study 3 was to establish greater specificity and clarity with regards to how remote work impacts depressed employees’ self-care behaviors. Additionally, Study 3 sought to test this relationship using data collected at multiple points of time, so as to address Study 1 & 2’s challenges with regards to temporal order and common methods bias. Additionally, Study 3 used more rigorous measures for depression and remote work compared to Study 1 and 2.

Sample

I used a multi-wave dataset for Study 3; this dataset was obtained by recruiting survey responses online through the Cloud Research Connect platform. Funding for this study was provided by Colorado State University’s Business for a Better World Dissertation Competition. Because the dataset was collected in the spring of 2024 (prior to conducting Study 1 and Study 2), it does not contain sufficient variables to test the entire theoretical model (see Figure 1).

However, it does contain sufficient variables to test Hypotheses 1a and 3a. Data collection for the Cloud Research dataset was deemed exempt and approved by the IRB (STUDY00016383), and contained survey data collected over three waves, each separated by 15 days. The three waves were matched using participant identification numbers. Participants were recruited if they met the following criteria: working full-time (more than 30 hours per week) and adult residents of the United States. Participants were excluded if they reported being any of the following: self-employed, independent contractor, solopreneur, individual business owner, or gig worker. These criteria are consistent with the research practices of scholars studying remote work (Hill et al, 2022), as literature exploring the impact of remote work typically explores its impact on employees who are working in traditional organizations.

The dataset used for Study 3 also contained an oversampling of employees who experience depression. This approach, which can also be called a “stratified sample approach” (Speech, Badura, & Blum, 2023), is consistent with prior research which seeks to oversample on a minority population in order to better understand their experiences relative to the majority (e.g., Ryu et al., 2023). While some research in management has sampled exclusively on employees who experience depression at certain thresholds or diagnoses (Follmer & Follmer, 2021), this research requires observations from depressed employees as well as nondepressed employees to enable adequate moderation analysis. However, an average sample collected from Cloud Research Connect (or an alternative online recruitment platform) is likely to include less than 10% of responses from individuals experiencing depression symptoms consistent with a major depression diagnosis, due to the population prevalence rates of depression (Weinberger et al., 2018). I therefore recruited a sample in which half of the participants reported being depressed, so to ensure a larger number of observations from employees for whom depression may be

uniquely impacting their behavioral tendencies (such as behavioral tendencies to engage in self-care activity).

To collect a stratified sample, I initially recruited 250 employees who reported experiencing current depression and 250 employees who reported not experiencing current depression (I recruited 500 total participants for wave 1). Survey participants who consented to the survey and passed the attention checks were retained and recruited for a second wave of data collection, 15 days later. The process was repeated once more for a final sample of 332 participants; 308 (average age of 40, 51% female) of which completed answered all the survey questions necessary for the analysis in Study 3. In this sample of 308, participants identified as White (75.6%), Black or African American (11.7%), Hispanic or Latino (8.1%), Asian (9.4%), American Indian or Alaska Native (<1%), or Other (1.3%). Within this sample, 162 participants met the criteria for non-mild depression symptoms. Specifically, 58 participants met the PHQ-8 criteria for minor depression, 104 participants met the PHQ-8 criteria for major depression, 76 reported a current depression diagnosis, and 70 participants reported a prior depression diagnosis.

Measures

Remote Work Intensity (Time 1). Consistent with existing research on remote work (e.g., Barsness, Diekmann, & Seidel, 2005) and recommendations for future research (Hill et al., 2022), I asked participants to report the percentage of work time they spend both (a) away from colleagues/supervisor/direct reports and (b) away from the physical presence of the employer.

Depression (Time 1). Participants responded to the 8-item PHQ scale for depression from Kroenke et al., (2009) in which they were asked to indicate “how often over the last two

weeks have you been bothered by any of the following problems?” (0= not at all to 3 = nearly every day). An example item is as follows: “Little interest or pleasure in doing things.”

Self-Care Activities (Time 3). Participants responded to four items pertaining to health care promoting behaviors (Luciani et al. 2022). Participants were asked “how often or routinely do they: 1) ...make sure to get enough sleep? 2) ...do physical activity (e.g., take a brisk walk, use the stairs)? 3) ...eat a balanced and varied diet? 4) ...do something to relieve stress (e.g., meditation, yoga, music)?” (1=never, 2=occasionally, 3=sometimes, 4=often, 5=often; $\alpha = .79$).

Demographics and Controls. In addition to asking participants for their age, gender, and race, I measured several control variables throughout this data collection. Relevant to the analysis for this study are variables that could influence an employee’s participation in remote work as well as their engagement in self-care activities. For example, I controlled for caregiver burden (Wrosch, Amir, & Miller, 2011) which was measured in Time 3, which could impact an individual’s desire to work from home while also impacting their depression symptoms and ability to engage in self-care behaviors (as opposed to care for others). For similar reasons, I included a question about the number of individuals who are typically at home during the participant’s remote work hours (Time 2). Additionally, I asked participants if their participation in remote work was for voluntary reasons, and/or due to accommodation (Time 3). In a similar vein, I asked questions pertaining to the participation in mental health treatment and whether any diagnoses were current (Time 3), both of which could influence both the desire to work from home (e.g., to enable a call with a clinician or therapist during the day) as well as the desire to engage in self-care-oriented behaviors.

Results

Table 7 contains descriptive statistics and correlations. Using this data, I tested Hypotheses 1a and 3a using OLS regression. Hypothesis 1a predicted that remote work intensity is positively associated with self-care activity. The effect of remote work intensity on self-care activity was not significant with controls ($b = .00, p = .507$) or without controls ($b = .00, p = .284$). Hypothesis 1a was therefore not supported. Hypothesis 3a predicted that the positive association between remote work intensity and self-care activity is stronger when depression symptoms are higher vs. lower. The interaction between remote work intensity and depression symptoms was marginally significant ($b = -.00, p = .085$). Importantly, the direction of the interaction was not consistent with Hypothesis 3a but was consistent with findings from Study 1a and Study 2. After including controls in the regression model, the interaction was not significant ($b = -.00, p = .123$). Therefore, Hypothesis 3a was not supported, both in terms of direction of the effect and significance of the effect after statistically controlling for alternative explanations (see Table 8).

Supplemental Analysis. I conducted two supplemental analyses to better understand the above findings. First, I explored the possibility of a curvilinear effect by including remote work intensity as a quadratic term in the main effects model and the interaction model. The main effect of remote work intensity (as a quadratic term) on self-care activity was not significant with controls ($b = -.00, p = .121$) or without ($b = -.00, p = .147$). The interaction with the quadratic term was not significant with controls ($b = -.00, p = .180$) or without ($b = -.00, p = .138$). Additionally, inclusion of the quadratic term in the interaction did not improve the fit of the regression model.

Second, I regressed each of the four activities/items from the health behaviors scale on the interaction between remote work intensity and depression symptoms. Because the items from the health behaviors scale (Luciani et al. 2022) pertained to four different activities (sleep,

physical activity, diet, and stress-relief), it's possible that only some of these activities could be impacted by remote work (e.g., just physical activity) when an employee is depressed. In a regression equation predicting the sleep item, the interaction between remote work intensity and depression symptoms was not significant with controls ($b = -.00, p = .995$) or without ($b = -.00, p = .833$). In a regression equation predicting the physical activity item, the interaction between remote work intensity and depression symptoms was not significant with controls ($b = -.00, p = .261$) or without ($b = -.00, p = .293$). In a regression equation predicting the diet item, the interaction between remote work intensity and depression symptoms was, surprisingly, significant with controls ($b = -.00, p = .020$) and without ($b = -.00, p = .014$). In a regression equation predicting the stress-relief item, the interaction between remote work intensity and depression symptoms was not significant with controls ($b = -.00, p = .268$) or without ($b = -.00, p = .181$).

A post hoc power analysis using G*Power found that the sample of 308 was underpowered; the sample had an estimated 69% power to detect an interaction term with a small effect size (Cohen's $f^2 = .020$). However, given that the sample included a substantial proportion of participants experiencing depression, and limited small effects were still observed, it is likely that remote work does not provide a meaningful impact in the face of depression, at least within a short-term time period.

Discussion

Study 3 provides further evidence that remote work intensity, for a depressed employee, is not associated with any unique improvements in quantities or frequencies of self-care behaviors. In other words, working remotely, when depressed, does not appear to be especially beneficial to an employee's ability to care for their own well-being. Study 3 also does not

provide any evidence that working remotely, for a depressed employee, is associated with unique deficits in self-care activities as a whole, as an overall category of behaviors. Instead, Study 3's supplemental analysis provides partial, limited evidence that high intensities of remote work could be negatively associated with certain self-care activities (i.e., eating a healthy and balanced diet) when an employee is experiencing depression. This finding remains directionally consistent with findings from Study 1a and Study 2, in which high intensities of remote work during depression were negatively associated with frequencies of physical activity and overall self-care activity, respectively.

Taken together, these findings suggest that existing virtual work theories—which emphasize remote work's ability to facilitate improved well-being via increased autonomy (Gajendran et al., 2024)—may be insufficient for explaining how depressed employees utilize that autonomy when working from home. Clinical perspectives, such as those recommending the engagement in structured activities as a mechanism for stimulating more goal-oriented behaviors (e.g., behavioral activation, see Kanter, Mulick, Busch, Berlin, & Martell, 2007), provide an alternative perspective. That is, given that depressed employees experience deficits in approach motivation (Trew, 2011), which would typically serve to promote greater self-care in a virtual setting, it's possible that the absence of structured commutes to in-person work (and other coinciding structured behaviors, like planned lunchbreaks) further promotes avoidance tendencies, thus further inhibiting self-care behaviors. I discuss implications for management theory and practice in the section below.

DISCUSSION

Since the COVID-19 pandemic, research on remote work has gained renewed attention and development (e.g., Doering & Tilcsik, 2024; Keating, Cullen-Lester, & Meuser, 2024).

During this time, scholars have sought to develop a better understanding of the relationship between remote work and well-being (Hill et al., 2022), yet an understanding of this relationship in the context of having a mental health condition is largely missing from management literature. Across three studies including both cross-sectional archival and multi-wave data, I explored the relationships between remote work intensity and well-being-oriented activities and outcomes for employees experiencing higher levels of depression symptoms. My findings across these studies (total N=6,671) suggest that depressed employees could be uniquely impacted by remote work, however the effects are likely to be subtle and different from prior assumptions about remote work. Below, I expand on the contributions and limitations of this research, as well as directions for future research.

Theoretical Contributions

This paper contributes literature on virtual work and well-being. Across a substantial body of research on the impact of remote work, scholars have found that working virtually typically increases an employee's perceived autonomy while simultaneously increasing an employee's perceived isolation; together, scholars have concluded that "remote work offers modest upsides with limited downsides" (Gajendran et al., 2024: 2). However, this literature largely focuses on changes in autonomy and isolation with regards to work-specific outcomes (e.g., relationships with coworkers, see Schinoff et al., 2020), and implications for individual well-being are mixed (Hill et al., 2022). Further, little is known about how employees with mental health conditions—for whom changes in isolation and autonomy could be critical to the trajectories of their conditions—experience remote work in a unique manner. Findings from this paper suggest that the increased autonomy afforded by a work-from-home setting could potentially hinder a depressed employee's propensity to engage in behaviors promoting self-care.

Simultaneously, working remotely may not be as socially isolating for a depressed employee as it is for the average employee. As a whole, this research finds that existing assumptions around the typical impact of remote work (for a meta-analysis, see Gajendran et al., 2024), may not be as useful in predicting how remote work uniquely influences the experiences of employees with mental health conditions, such as depression.

This research also contributes to a growing literature on mental health and mental illness in the workplace (e.g., Rosado-Solomon et al., 2023). Employees individuals with depression are likely to be uniquely affected by their social surroundings, and depression is likely to impair and constrain the social circles in which they feel comfortable (Hames et al., 2013; Ibarra-Rovillard & Kuiper, 2011). In the workplace, employees experiencing depression may unfortunately experience mistreatment and injustice in a more amplified and detrimental manner than the average employee (Lang et al., 2011; Follmer & Follmer, 2021), and some clinical perspectives suggest it may be therapeutic to reduce triggers for social strain (Lipsitz & Markowitz, 2013). Simultaneously, interdisciplinary scholars have promoted social support as an important determinant of well-being and recovery for employees with mental health conditions (Kelloway et al., 2023), suggesting that a social work environment which facilitates support could be beneficial, and ward against isolation that is expected to further increase depression symptoms (Kanter and Manbeck, 2020). However, it remains unclear if changes in the social environment, as a result of a change in work setting, could be helpful or harmful in the face of depression. This paper's Study 1a and 1b found that greater remote intensities of remote work did not reduce social support activity (time spent with friends and relatives) for depressed employees it did for the average employees. Given this finding, it's possible that the social strain associated with depression prevents depressed employees from developing relationships from the informal social

opportunities present in in-person environments. This paper contributes to our understanding of the extent to which social work environments could be helpful (or potentially not relevant) in the context of experiencing depression. Additionally, findings from this paper support a growing understanding of why interpersonal disengagement, in the context of depression, may not be as harmful as previously assumed (Rosado-Solomon et al., 2025).

Practical Contributions

This paper has practical implications for employees experiencing depression, as well as for policy makers and leaders who enable or prevent remote arrangements. For employees, although remote work may appear to be a helpful option given how it allows employees to have greater access to people and personal resources at home, this paper did *not* find unique benefits associated with remote work—at least in terms of engagement in behaviors that promotes social support or self-care. The (albeit inconsistent) supplemental findings from this study pertaining to self-care behaviors are concerning; if high intensities of remote work are associated with reduced frequencies of exercise or healthy eating, then working remotely over the long term could potentially be harmful. Physical activity is particularly critical in the face of depression, because exercise is predictive of recovery from depression symptoms and has even been considered as effective as an antidepressant at certain levels of depression symptoms (Kvam, Kleppe, Nordhus, & Hovland, 2016). Further, other activities involving self-care can be considered therapeutic—and predictive of depression recovery—according to literature on behavior activation (Kanter et al., 2007). In short, depressed employees who seek to work remotely may benefit from monitoring overall self-care activity, particularly physical activity, to ensure there are no unintended reductions due to greater amounts of time spent at home. Additionally, policies which endorse remote work as an accommodation for employees with depression (U.S.

Department of Labor), as well as clinical health care providers, may benefit from increased attention to the possible downsides of a high remote work intensity.

This paper also has practical implications for employees who do not experience depression. Although research following the Covid-19 pandemic has implicated higher intensities of remote work in the discussion of a societal loneliness crisis (e.g., van Breen et al., 2021)—this paper supports a more nuanced story. Both the NWS and GSS datasets, as analyzed for this paper, suggest that greater intensities of remote work are *not* directly and positively associated with greater overall loneliness (distinct from work-related loneliness, which is tied specifically to a work context, see Becker et al., (2022)). Importantly, loneliness, which involves emotions relating to dissatisfaction with the quality and quantity of one's social life, is distinct from—but can be predicted by—social isolation, which “is a quantitative measure of network size, network diversity, and frequency of contact,” (Ge et al., 2017: 2). Social isolation is determined by factors such as living alone, and social connectedness with friends (Ge et al., 2017). Aligned with these nuances, this paper finds that nondepressed employees who choose to work remotely will not necessarily experience greater overall loneliness as a direct result of their work arrangements. However, if working remotely changes employees' social patterns such that it reduces time spent with friends (a component of social isolation), then greater remote work intensities may be indirectly and weakly associated with overall loneliness. Employees should accordingly assess how their work arrangements could change their day-to-day social patterns before adopting a remote job.

Limitations and Future Directions

Insights from these three studies are limited in several ways. First, several findings did not replicate across datasets. For example, the *type* of self-care activity predicted by the

interactions between remote work intensity and depression symptoms was inconsistent. Specifically, the physical activity finding from Study 1a did not replicate in Study 1b, which used the same measures, or in Study 3's supplemental analysis, which used a different measure from the one used in Study 1a and Study 1b. Additionally, the overall self-care activity finding from Study 2 also did not replicate in Study 3; though here too, different measures were used across analyses. This inconsistency suggests the possibility of an unmeasured confounding variable, such as experienced social pressure to adhere to health-related goals, or commute-related behaviors, which could be driving various self-care related effects. Future research on this topic may benefit by testing a more expansive set of outcomes.

Imprecise measures across all studies, with regards to the amount, frequency, and timing of self-care activities and social support activities, limit the possibility of developing a clear understanding of how depression manifests during remote work. For example, it remains unknown if, for an employee who has a moderate remote work intensity (i.e., a hybrid work setting), decreases in self-care activity happen only on remote workdays (as opposed to in-person workdays) or throughout the week. Study 2 and 3 are particularly limited by a lack of precision in terms of the content of the self-care activity (it is unclear as to what a balanced diet is) and the frequency of the activity (it is unclear if the frequency of healthy eating occurs over the course of a day, week, or month). Future research on this topic may benefit from the use of experience sampling methodology, which may better illuminate how changes in work settings lead to daily differences in engagement in self-care or social support activities. For example, a daily or weekly survey reporting on the type of social activity (e.g., who the employee spent time with, whether they were from the employee's work life or personal life) may help elucidate the inconsistencies highlighted throughout this paper. Finally, the inclusion of other-report measures (e.g., questions

answered by the employee's spouse or roommates), may help prevent future studies from being prone to perceptual biases that are typical of depression (e.g., Sfärlea et al., 2019).

Also limited by this research is an understanding of whether, in the face of experiencing depression, remote work has a linear relationship with self-care and social support activities. Supplemental analysis from Study 1a and Study 2 suggest that if remote work intensity does have an impact on a depressed individual, then that impact may be driven by comparing extremes in work arrangements (e.g., fully in-person to fully-remote), suggesting that either experiences during hybrid may not follow a linear pattern, or extensive variation in the hybrid measure makes it difficult to capture a linear relationship. In the case of the former, it's possible that hybrid arrangements offer an optimal balance in the face of depression; recent research on hybrid arrangements suggest that they may help achieve *both* productivity and commitment outcomes for the average employee (Bloom, Han, & Liang, 2024). If, on the other hand, fully-remote settings may offer qualitative differences that are uniquely impactful to depressed employees, then future research may benefit by oversampling not only on employees with higher levels depression symptoms (e.g., Follmer & Follmer, 2021), but also oversampling on employees with higher intensities of remote work; a more focused sample may be able to generate more comprehensive insights into the intersection of these two lower-base rate conditions.

Finally, this research is limited in its understanding of the role of time, and whether or not the impact of remote work for a depressed employee could be determined by temporal factors, such as the amount of time spent working remotely, or the amount of time spent being depressed. Because Study 1a, 1b, and Study 2 utilize only cross-sectional data, these studies are unable to identify and quantify trajectories or bidirectional relationships; the ability to do so has helped

scholars generate valuable insights into how depression can impact an employee's experience in a manner differently than previously assumed (e.g., Follmer & Follmer, 2021; Lang et al., 2011). Although Study 3's multi-wave design presents an improvement on a cross-sectional design by limiting common methods bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), it does not offer any insight into how the effects of remote work could build or compound over month, or even years. For example, if remote work very subtly reduces a depressed employee's self-care activity after one month, then what is the long-term impact for this employee if they continue working remotely for a year? Future research may accordingly benefit from adopting a longitudinal cohort design (e.g., Hankin et al., (2015)), which could track remote employees over time by assessing outcomes every 3-6 months. Doing so could offer important insights into the costs and benefits of short-term or long-term remote work accommodations for employees experiencing depression.

CONCLUSION

Working remotely has the potential to impact various facets of an employee's well-being (Hill et al., 2022), though the effect is regarded to be small, because of its "dual pathways" (Gajendran et al., 2024). Yet, for employees whose well-being is in critical condition (e.g., employees who experience high levels of depression symptoms), it is imperative to understand whether working remotely could be associated with any unique or unintended consequences. Consistent with prior research on virtual work, the findings from this paper suggest that remote work in the face of depression is likely to only be subtly impactful, at least in the short term. In contrast with prior research, however, this paper finds some evidence that remote work may not be as interpersonally detrimental to a depressed employee as it is for the average employee. Importantly, I also found that remote work doesn't differentially help—and might even

differentially harm—a depressed employee's engagement in behaviors that promote their physical and mental health. This finding suggests that practically, remote work as a formal accommodation may have limited benefits, and the increased autonomy that remote work offers may not be as helpful for depressed employees as the remote work literature assumes.

ABSTRACT

Coworker social support, in the face of an employee mental health challenge, has been called for and endorsed by businesses, organizational leaders, and scholars alike. However, the ways in which coworkers can support an employee with a mental health challenge (such as depression)—and encourage other peers to do the same—are not well understood. Prior research finds that endeavors to help other employees at work may be subject to scrutiny and situational barriers, which may be even more likely the case in the context of workplace mental health. I accordingly draw from literature on depression stigma to highlight the nuanced conditions under which coworker efforts to be a good citizen could either fail or engender collective support towards a depressed employee. I conducted several experiments in which a coworker (on behalf of a depressed employee) requests a social support behavior (relational vs. instrumental) from a recipient coworker. Using both a field sample and online panel samples, I found that perceptions of different social support behavior requests were dependent on the recipient's level of depression stigma. Importantly, this research suggests that perceiving a social support request as empathetic is not sufficient for facilitating a recipient's willingness to help; rather recipients' perceptions that a social support request was appropriate was necessary for their cooperation.

INTRODUCTION

Amidst what many have labelled as a societal mental health crisis (CDC, 2025), organizational leaders and mental health experts have called for greater peer and coworker support in the workplace. For example, in an interview with Louise Bradley, President of the Mental Health Commission of Canada, it was recommended that “one way to increase mental health support in the workplace is peer support” (McIntosh, 2023). Advocates of this approach often call for workplace “mental health spot checks” with peers (Venable, 2024). Organizations have also incorporated coworker support into their mental health programming; Unilever’s “Mental Health Champions” program has “trained 1,600 employees to become mental health champions who support their peers by looking for signs of people struggling with mental health and connecting them to services that can help” (Nair, 2021). Although these recommendations often imply that employee mental health can and should be collaborative peer effort, critiques of this approach are cautious of ambiguous social support recommendations, suggesting that “a lack of clarity [...] can actually undermine efforts to support employees effectively, fuel stigma, and water down important conversations about mental health at work” (McPeck, 2025).

Management literature on employee mental health broadly echoes these calls for greater workplace “social support” (Follmer & Jones, 2018; Kelloway et al., 2023; Rosado-Solomon et al., 2023). Simultaneously, this literature acknowledges that an employee with a mental health condition could face “both overt and subtle discrimination” from their coworkers, leading to greater interpersonal strain for the employee (Follmer & Jones, 2018: 336). This tension between the need for social support and the risk of experiencing social mistreatment is particularly relevant to employees experiencing depression (Hames et al., 2013), a condition that is rooted in feelings and beliefs about social rejection (Beck & Haigh, 2014). When depressed, employees

may rely on the support of peers with whom they feel most comfortable, such partners or close friends (Hames et al., 2013; Ibarra-Rovillard & Kuiper, 2011). However, these peers may then choose to include others in their efforts so that they do not have to “single-handedly” support a depressed individual (BoldHealth, 2024). Scholars outside of the management field suggest that depressed employees may also benefit from coworker support (e.g., Gragnano, Negrini, Miglioretti, & Corbière, 2018; McCardel, Loedding, & Padilla, 2022; Williams, Fossey, Corbière, Paluch, & Harvey, 2016). However, it is unclear from both clinical and management research as to how a coworker who attempts to support a depressed employee will be perceived by others, particularly any other coworkers who they aim to include in their support efforts.

Importantly, literature on the topics of workplace helping, citizenship, and allyship suggests that coworker efforts to support a depressed employee—including the efforts to garner others’ support for that employee—could backfire. Research on employee helping notes that these behaviors have the potential to not only fail, but also cause unintended damage (Heng & Fehr, 2022; Hong, Steigerwald, Jex, & Park, 2025). Other research has found that allies who seek to be advocates for minority identities risk being perceived as insincere; these negative reactions can hinder their advocacy and prevent successful allyship (Moser & Wiley, 2024). Yet, favorable perceptions of efforts to be a good citizen may be critical for enabling future reciprocity (Lam, Walter, & Lawrence, 2021). However, well-intentioned coworkers could, unfortunately, “misperceive how allyship will be received” (Birnbaum, Wilson, & Waytz, 2024:1). In the context of employee mental health, coworkers’ supportive efforts could also be evaluated based on factors unknown to them, such as an individual’s unexpressed beliefs and attitudes (Moser & Wiley, 2024). Given these challenges, any coworker who seeks to be helpful towards a depressed

employee may be at the mercy of other coworkers' judgements, hindering both the coworkers' efforts and reputation.

As a coworker, facilitating support for a depressed employee could be particularly precarious, due to the many risks associated with sharing a stigmatized identity at work. Employees who reveal a stigmatized identity, such as depression, may fear discrimination or mistreatment in their workplace (Follmer, Sabat, & Siuta, 2020); employees who reveal *others'* stigmatized identities may be judged as immoral or lacking in loyalty (Hart, VanEpps, Yudkin, & Schweitzer, 2024). From the perspective of workplace gossip, coworkers who reveal another employee's depression could also be judged in terms of trustworthiness, though the question of whether this gossip creates or diminishes trust varies situationally (Sun, Schilpzand, & Liu, 2023). Research has found that gossip can, actually, be "prosocial," and involve sharing sensitive information with a recipient for the purpose of protecting or benefiting the recipient (Feinberg, Willer, Stellar, & Keltner, 2012). Less understood is the act of sharing sensitive information with a recipient for the purpose of benefiting the target—or in this case, the employee with depression. If this employee's coworker discloses the employee's depression with another peer at work, and subsequently requests support from that peer for the sake of the depressed employee—how will that coworker be perceived?

Sociological perspectives may offer an answer to this question; perceptions of peer efforts to support a depressed employee may be constrained by, and subject to, the forces of depression stigma, which can be defined as a set of beliefs and feelings about depression, rooted in the stereotypes about depressed individuals (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Martin, 2010). Depression stigma has unique cognitive, affective, and behavioral dimensions (Martin, 2010), making it distinct from other stigmas (Ellison, Mason, & Scior,

2013; Ziano & Koc, 2023). Importantly, depression stigma is expected to have implications for the amount of support given to a depressed employee (Martin, 2010; Corrigan et al., 2003), but less is known about its impact on other coworker interactions in the workplace. Management research suggests that workplace peer interactions in the context of responding to an employee with depression could be highly consequential over the span of months and even years (Kensbock, Alkærsig, & Lomberg, 2022), though the mechanisms by which they do are highly debated (e.g., Keyes & Shaman, 2022), as these interactions could be beneficial in their ability to normalize and reduce stigma pertaining to mental health challenges, while also potentially detrimental in terms of emotional contagion, leading to further stigmatization of depression (Pierce & Rider, 2022).

This paper accordingly seeks to expand our understanding of coworker interactions and collaborative support when an employee faces depression. I specifically ask the following research question: If a depressed employee's coworker requests support (specifically a social support behavior) from a recipient coworker, how will this request be perceived, and what are the subsequent implications? Drawing from theory on depression stigma (Corrigan et al., 2003; Gelb & Corrigan, 2008; Martin, 2010), I argue that differences in the content of the request (relational social support behavior vs. instrumental social support behavior) could impact a recipient's perceptions of empathy and appropriateness, depending on the recipient's level of depression stigma. Additionally, I argue that perceptions of these requests are impactful to short-term and long-term behaviors, specifically the recipient's willingness to help, as well as the recipient's willingness to disclose their own personal mental health challenge if needed. I test my theoretical model (see Figure 4) across three studies, starting with a field sample (Study 1). I then subsequently test for replication with online panel samples by conducting two more scenario

experiments in Studies 2 and 3, in which I vary scenario content and test the role of depression stigma as both an individual difference as well as a manipulation.

This research contributes to management literature in several ways. First, this research contributes to literature on employee mental health by focusing on perceptions of mental health-related conversations in the workplace. Whereas management research typically focuses on the experiences of employees with a mental health challenge or condition (Rosado-Solomon et al., 2023), I explore how this context impacts coworkers' relationships. In doing so, this paper expands our understanding of the different ways in which talking about mental health can be consequential, highlighting both potential costs and benefits for coworkers who seek to be supportive of employees with mental health conditions. Second, this research contributes to theory on the disclosure of stigmatized identities (Follmer et al., 2020) by demonstrating how indirect disclosures of mental health conditions can have more far-reaching consequences for coworker relationships and employee behavioral intentions than previously assumed. Third, this research contributes to literature on workplace gossip (Sun et al., 2023). Because a mental health context reveals that prosocial gossip could occur because of intentions to benefit the target of the gossip, this research expands our understanding of how gossip occurs and its unique consequences in a mental health context.

THEORETICAL DEVELOPMENT

Coworker Support for Depression

When an employee experiences depression, they may rely on their peers for social support. Literature finds that this social support, from both *work and nonwork* sources (e.g., peers, friends, partners), can vary in terms of its "content," such as emotional content or instrumental content (for a review, see Bavik et al., 2020). Nonwork peers, such as friends or

partners, might provide emotional support by providing reassurance in the face of negative beliefs and experiences (Hames et al., 2013), as well as encouraging the depressed employee to engage in healthy activities or seek treatment (Ibarra-Rovillard, Kuiper, 2011). These behaviors may play a role in maintaining or facilitating a stronger personal relationship with the depressed employee, particularly due to the greater interpersonal and emotional involvement required when providing reassurance or encouragement (Hames et al., 2013). Alternatively, friends or partners could also address situational needs, such as “assistance with house chores and other activities that the depressed individual finds difficult to do” (Ibarra-Rovillard, Kuiper, 2011: 349). Although actions which address situational needs may not involve as much direct interaction with the depressed employee, they may still be an act of social support because they are problem-focused and address the tangible tasks at hand (Bavik et al., 2020). Importantly, peers could also act as a liaison between the depressed individual and others, such as mental health practitioners (Ibarra-Rovillard, Kuiper, 2011). They may also choose to reach out to or involve other friends, family, or community members to obtain additional support (Smith, Robinson, & Segal, 2025). Doing so can help a peer be more well-informed about how they can support a depressed employee; some mental health clinics explicitly recommend that the partners of depressed individuals should proactively “reach out to friends, family, or support groups to share your experiences and seek advice” instead of trying to “single-handedly” support a depressed individual (Bold Health, 2024).

At work, the sources of peer social support—and content of that support—could differ from a nonwork context. If an employee is experiencing poor mental health, then it is broadly recommended that they can benefit from coworker social support, according to both clinical and management literatures (e.g., Follmer & Jones, 2018, Gragnano, 2018; McCardel, 2022;

Williams et al., 2016). However, this literature's explanation for what this mental-health relevant coworker support should look like, in terms of its content, is unclear. As with different forms of nonwork peer support, it's possible that social support behaviors in the context of an employee experiencing depression could also vary in the extent to which they help facilitate a greater personal relationship with the employee. For instance, some workplace social support behaviors could involve conversations of emotional reassurance, or actions to address the employee's unique personal needs (Bavik et al., 2020). Other social support behaviors could involve a focus on workplace problem-solving, involving actions which address tangible situational tasks (Bavik et al., 2020). I refer to this difference by distinguishing between relational and instrumental social support behaviors, which I explain in the following paragraphs.

I define relational social support behaviors as efforts to directly help other *employees* at one's organization in a manner which addresses their unique personal, nonwork needs, and involves actions that could potentially lead to the development of greater personal relationships with those employees. I assume relational social support behaviors to consist of some amount of direct exchange, interaction, or communication with another employee, consistent with an interpersonal citizenship behavior (Halbesleben & Wheeler, 2011), personal helping behavior (Lanaj & Jennings, 2020), and emotional social support behavior (Bavik et al., 2020). A relational social support behavior could therefore involve making colleagues feel comfortable, assisting them with non-work-related tasks, and offering concern and care when appropriate (Lee and Allen, 2002). As previously mentioned, a depressed employee's peers may attempt to provide personal support through increased reassurance and responsiveness to a depressed employee (Hames et al., 2013); a relational social support behavior could similarly function to address the personal needs of a depressed employee by taking time to act in a caring manner

towards them if they are experiencing depression symptoms, or engage in personal helping in a way that might aid, or allow greater time and space for, their recovery.

Instrumental social support behaviors, on the other hand, involve efforts to engage in tangible tasks and situational needs, such that an instrumental social support behavior at work would address workplace problems or improve the organization's functioning (Bavik et al., 2020). As previously mentioned, a depressed employee's peers may attempt to provide support by addressing the needs of the situation around the depressed employee, such as neglected chores in a depressed employee's living space (Hames et al., 2013; Ibarra-Rovillard & Kuiper, 2011); an instrumental social support behavior could similarly function to address the situational needs of the employee's work unit in a problem-focused manner. Existing research finds that "instrumental support can be more effective in buffering the negative effect of work stress on certain form of work outcomes" (Bavik et al., 2020: 738). Although instrumental social support may not respond directly to a depressed employee's emotional or personal needs, it may provide an opportunity to address the work-related situational needs associated with higher levels of depression symptoms (McDowell & Fossey, 2015). Because employees who experience depression may benefit from work accommodation and adjustments (e.g., modifying tasks and demands at work, see Lagerveld et al., 2010; Nowrouzi-Kia et al., 2023), an organization's situational needs could be impacted in the context of a work accommodation (e.g., re-delegating tasks), and may be addressed through an instrumental social support behavior.

If a coworker wants to engage in a relational or instrumental social support behavior on behalf of a depressed employee—and in doing so they enlist the participation of another coworker in that social support behavior—it's possible that they could be judged by that other coworker. Additionally, judgements could differ depending on whether a relational vs. instrumental

behavior is requested. Research on personal and task helping has found that when leaders help followers with tasks (as opposed to personal issues), they are perceived by followers as more engaged in their work, while leaders themselves feel more negative emotions associated with personal helping (Lanaj & Jennings, 2020). Similarly, scholars have found that OCB-Is may be more exhausting than OCB-Os (Halbesleben & Wheeler, 2011). Other literature suggests that perceptions of different types of help can depend on the urgency of the situation, altering perceptions of benevolence and trustworthiness (Chernyak-Hai, Heller, SimanTov-Nachlieli, & Weiss-Sidi, 2024). Further, an individual's propensity to engage in a relational vs. instrumental social support behavior could be driven by their internal values, such as their drive for achievement (Arthaud-Day, Rode, & Turnley, 2012), or even their personality traits (Ilies, Fulmer, Spitzmuller, & Johnson, 2009). Taken as a whole, a request to participate in relational social support compared to instrumental social support could be differentially judged and enacted depending on a variety of situational factors or individual differences.

In a mental-health specific context, it is still unclear as to *how* the request to participate in relational vs. instrumental social support will be perceived. I explore these potential perceptions and evaluations by theoretically exploring the following hypothetical situation: In this situation, a depressed employee has disclosed their depression to a coworker, who I call the "requester." Following the disclosure, the "requester" coworker shares information about the employee's depression with a "recipient" coworker. Then, the "requester" coworker encourages the "recipient" coworker to participate in one of two types of social support, relational or instrumental (referred to in the following section as an "relational social support request" or an "instrumental social support request"). I draw from literature on depression stigma to explain how a relational social support request could be perceived differently compared to an

instrumental social support request, and how these perceptions could influence behavioral inclinations, both in terms of the recipient's subsequent willingness to support the depressed employee, as well as the recipient's willingness to potentially disclose a personal mental health condition in the future. I outline my theoretical arguments in the next section.

The Role of Depression Stigma

The way a relational vs. instrumental social support request is perceived could depend on a recipient's level of depression stigma. Stigma is typically defined as a judgement of lower status for individuals with certain identities, such as physical identities involving disabilities or obesity, or occupational identities that are associated with tainted or 'dirty' work, etc. (Corrigan et al., 2003; Lyons, Lynch, & Johnson, 2020; Lyons, Pek, & Wessel, 2017). Stigma, at a societal level, is regarded to be highly problematic as it can lead to inequality in health and financial outcomes (Clair, Daniel, & Lamont, 2016). For the individual with the stigmatized identity, stigma can lead to a variety of negative short-term and long-term consequences. For example, employees with stigmatized identities may experience greater discrimination within the workplace (Johnson & Joshi, 2016), contributing to negative performance evaluations (Hernandez et al., 2016), reduced job satisfaction (Johnson, Hunger, Sawhney, & Kunstman, 2024), and a lower likelihood of leader emergence (Avery, McKay, & Volpone, 2016). Overtime, the effects of discrimination for stigmatized groups of individuals can harm well-being, resulting in psychological distress, lower life satisfaction, depression, and anxiety (Schmitt, Branscombe, Postmes, & Garcia, 2014). Taken as a whole, and applied to a mental health context, stigmatized beliefs about an employee's depression could, over time, harm both their professional success as well the recovery of their condition.

In the context of workplace conversations about mental health, depression stigma that is work-centric is likely to be particularly influential. Prior scholars who have explored *workplace depression stigma* have conceptualized it as a set of stereotypes and negative expectations about depressed employees (Martin, 2010). Workplace depression stigma is also conceptualized as having cognitive, affective, and behavioral components; these components lead to further social rejection of employees with depression (Martin, 2010). The cognitive dimension of stigma involves beliefs about depressed employees at work (e.g., beliefs that depressed employees shouldn't be working). The affective dimension of stigma involves how people feel about depressed employees (e.g., feeling awkward or sad when working near a depressed employee). Finally, behavioral stigma involves behavioral differences that occur around depressed employees (e.g., differences in how often a person talks to or spends time with a depressed employee) (Martin, 2010). This three-dimensional model of workplace depression stigma is consistent with nonwork tripartite models of mental health stigma, such as the “socio-cognitive model of stigma,” involving attitudes, emotions, and behavior intentions (Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012).

Importantly, research suggests that stigmatizing just one employee can have a multiplicative, detrimental effect to other employees in the organization. For example, employees could receive negative evaluations because of their association with another employee who holds a stigmatized identity (Kulik, Bainbridge, & Cregan, 2008). In this manner, stigma can occur at different levels (individual, occupation, organization, etc.), and travel within and across levels (Zhang, Wang, Toubiana, & Greenwood, 2021). Stigmatization of certain identities can even impact stakeholders outside of an organization. For example, consumers may perceive a small business's products as lower quality when the leader of that company has a

stigmatized identity (Avery et al., 2016). As such, any conversations among coworkers that kindle stigmatized beliefs or perceptions could have long-lasting effects beyond the conversation itself. As such, depression stigma may not only moderate the relationship between the type of social support request and recipient perceptions of the requester, but depression stigma could also play a moderating role in the indirect relationship between the type of social support request and subsequent behavioral intentions, such as willingness to help or willingness to disclose (I discuss these outcomes in a later section).

Social Support, Depression Stigma, and Perceptions of Empathy

To understand how depression stigma could moderate the perceptions of a relational vs. instrumental social support request, it is critical to consider the theoretical perspectives which explain the underlying beliefs that drive depression stigma. According to Corrigan et al. (2003), “mental illness stigma” is driven by a process that relies on individuals’ beliefs about a given mental illness or condition, which then dictates the type of emotional response an individual will have towards a person with that condition. These cognitive and emotional reactions then determine the extent to which an individual engages in either helping behavior, or even discriminatory behavior, towards the person with the mental health condition (Corrigan et al., 2003). Beliefs surrounding the controllability and dangerousness of a condition are critical drivers of more stigmatized responses (Corrigan et al., 2003), and they help explain why depression stigma plays a role in how different social support requests are perceived.

First, depression stigma could change the degree to which a relational social support request, as compared to an instrumental social support request, is perceived as empathetic. Perceptions of empathy can be defined as the belief that an individual has a sense of “understanding, sympathy, and compassion regarding the feelings” of another individual

(Wahlers, Hart, & Lambert, 2024: 2). Empathy itself involves an “other-oriented emotion,” driven by an acceptance or understanding of another human’s needs (Batson, 2018). Perceived empathy, however, is regarded to be one person’s cognitive evaluation of another person’s level of understanding of someone else’s emotions, needs, and personal situation (Cramer & Jowett, 2010; Gu, Lau, Wang, Wu, & Tan, 2015). In the depression context of this paper, a request which asks a recipient to act in a helpful manner directly to the employee with depression, could be perceived as inherently more empathetic than an instrumental social support request, based solely on the concept of a relational social support request being ‘other-oriented’ in the same way that empathy is other-oriented response. However, the extent to which a relational vs. instrumental request is perceived as empathic may depend on the recipient’s level of depression stigma; individuals with lower levels of stigma are likely to view relational and instrumental requests as highly distinct in terms of empathy, for the reasons I outline below.

As previously mentioned, depression stigma is rooted in beliefs pertaining to a condition's “controllability,” which “relates to characteristics of the causes” and an “assignment of responsibility” (Corrigan et al., 2003: 165). According to Corrigan et al., (2003), viewing an employee’s depression as less internally controllable, and more attributable to external factors that the employee is not responsible for (e.g., a physical illness that results in depression symptoms as a side effect), can elicit less stigmatized reactions such as sympathy, and subsequent helping behavior. Thus, if the recipient of an instrumental social support request doesn’t blame the employee for their depression, and therefore has lower levels of depression stigma, they may be more likely to sympathize with the depressed employee and then view any efforts to be courteous or personally helpful as substantially more empathetic than any efforts to support the organization. However, if a recipient to a relational (vs. instrumental) request has

higher levels of depression stigma, they may be more likely to judge the depressed employee as responsible for their condition. In doing so, any relational requests may be deemed as less empathetic relative to an instrumental request, because the recipient could believe that requester is not adequately understanding of the “controllable” nature of depression and therefore their efforts request relational vs. instrumental social support could be perceived as more misguided and out-of-touch, and less sincere or resonant with the depressed employee.

Evidence suggests that depression stigma could play an important role in the extent to which a relational social support request vs. an instrumental social support request is perceived as empathetic. While the role of depression stigma has not been fully explored in management literature, prior research has found associations between depression stigma and perceptions of empathy (Tippin & Maranzan, 2019), as well as between personal helping behaviors and perceptions of empathy (Stürmer, Snyder, Kropp, & Siem, 2006). Literature focusing on allyship behaviors similarly argues that attempts at allyship are likely to be moderated by “opinion-based identities (e.g., feminist),” and people who are motivated to ensure the “empowerment” of a given identity may prioritize ascertaining [an ally’s] sincerity (vs insincerity)” (Moser & Wiley, 2019:11). Indeed, research has previously found that individual differences can interact with activist efforts to impact subsequent perceptions (Burrows, Selvanathan, & Lickel, 2023). I accordingly hypothesize the following:

Hypothesis 1: The positive association between a relational (vs. instrumental) social support request and perceptions of empathy is weaker when the recipient’s level of depression stigma is higher vs. lower.

Social Support Requests, Depression Stigma, and Perceptions of Appropriateness

Depression stigma could also impact how social support requests are evaluated in other ways. Literature on the topic of mental health stigma, specifically in a workplace context, suggests that efforts to socially support employees with mental health conditions could be evaluated in terms of appropriateness, or adherence to workplace social norms: “some will question the *appropriateness* of what may seem to be a social crusade on the part of a business, an industry group, or an even larger business coalition” (Gelb & Corrigan, 2008: 299-300). Literature on managerial depression stigma suggests that perceptions of appropriateness can vary widely, finding that only “about two in five managers surveyed felt depression was an appropriate topic for discussion in the workplace (43%)” (Martin, 2010: 664). In the context of a social support request, it’s likely that the recipient may judge the requester based on perceptions of conversational appropriateness. Consistent with research on communication (Canary & Spitzberg, 1987; Kahalon, Becker, & Shnabel, 2022), I define conversational appropriateness as an individual’s cognitive evaluation of whether a piece of communication adheres to the social norms of both a specific environment as well as a specific relational context. Perceptions of conversational appropriateness are evaluated on a continuum, in which an individual could perceive a type of communication as more or less favorable in terms of its “verbal sensitivity, relational context, and environmental context” (Canary & Spitzberg, 1987: 95). When a conversation is perceived as having a lower appropriateness, it may be perceived to be “problematic,” or even “discriminative,” because an individual who is evaluating the conversation may believe that it violates the norms associated with developing constructive social interactions and relationships in the specific setting of that conversation. In the workplace, perceptions of conversational appropriateness are likely to differ from perceptions of conversational appropriateness outside of work, while also depending on the individual attributes

(e.g., gender) of the colleagues involved in the conversation (Kahalon, Becker, & Shnabel, 2022). Conversational appropriateness, according to Canary & Spitzberg (1987), is one component of a broader set of communication skills and conflict-management skills, which can include conversational effectiveness and general social appropriateness. Recent workplace research has indeed found that employees judge other employees' comments in terms of appropriateness, particularly when the conversational topic itself is in reference to a specific identity (Kahalon et al., 2022).

Because personal mental health information is often considered to be a private or concealable topic requiring disclosure (Follmer et al., 2020), an effort to solicit relational or instrumental support within the workplace could be evaluated with respect to workplace norms and guidelines. Typically, organizations may offer work accommodations in alignment with practices by their human resources department and employee assistance programs (Follmer & Jones, 2018); supervisors may also be involved in adjusting work responsibilities and coaching to ensure a depressed employee is able to continue their participation in their work (Tsutsumi, 2011)—or to ensure coverage and communication while a depressed employee takes leave (Dewa, Trojanowski, Joosen, & Bonato, 2016). While a social support request may be aligned with calls for social support for employees with mental health challenges (Kelloway et al., 2023), it could also be evaluated on whether or not the social support request violates norms pertaining to how a depressed employee should obtain support or accommodated work when they are depressed. It is therefore likely that the conversation in which a depression disclosure occurs could be judged in terms of its appropriateness, and perceptions of whether or not the conversation is sensitive to the potential negative consequences for sharing a colleague's mental health information, of which there could be many (Follmer et al., 2020).

I argue that the extent to which a relational (vs. instrumental) social support request is evaluated as appropriate is also moderated by a recipient's level of depression stigma. According to Corrigan et al. (2003), one of the beliefs underlying the stigma of mental health conditions is the expectation that a person with a mental health condition, such as depression, could be dangerous or unpredictable. These stigmatizing views fuel behaviors towards a depressed individual, such as social avoidance, withholding help, or even limiting the "interpersonal and economic resources central to recovery from mental illness" (Corrigan et al., 2003; 169), such as hiring opportunities or financial support. Considering these beliefs pertaining to dangerousness or unpredictability, recipients with higher levels of depression stigma may be more motivated to evaluate a social support request in terms of how it could address the threat of having a depressed employee in the workplace.

Differing evaluations appropriateness, depending on levels of depression stigma, could occur for several reasons. For example, a recipient with higher levels of depression stigma could perceive an instrumental request as more appropriate, because the aim of the instrumental request could help address potential problems in the workplace potentially caused by the employee's depression. Additionally, a recipient with higher levels of stigma may want to behaviorally avoid a depressed employee, impacting their perceptions of a relational social support request. However, if a recipient doesn't view an employee as threatening, thus having a lower level of depression stigma, then they may have a more favorable reaction to a relational social support request (which could involve interacting with the depressed employee). Additionally, this recipient is likely to view an instrumental request as substantially less appropriate than a relational request, because they may not interpret their organization as being threatened by the unpredictability or danger of an employee with depression. In sum, depression stigma could play

a role in *shifting the target of the social support behavior*, with greater stigma leading to a greater shift from an interpersonal target to an organizational target. Indeed, stigma towards individuals with mental health conditions has been associated with greater concern for the organization (e.g., hiring discrimination) and less “empathetic dialogue” (Østerud, 2023).

Hypothesis 2: The positive association between a relational (vs. instrumental) social support request and perceptions of appropriateness is weaker when the recipient’s level of depression stigma is higher vs. lower.

Behavioral Implications

Changes in perceptions of empathy and appropriateness, as a result of how depression stigma interacts with the form of social support request, could have both short-term and long-term consequences. These consequences could be influential to both the recipient of the social support request, as well as the social support requester. In the short term, it’s possible that fluctuating perceptions of empathy and appropriateness could impact a recipient’s willingness to help with the request. I define ‘willingness to help’ as the level of interest and commitment towards participating in the requested social support. Prior research assumes that ‘willingness to help’ can be considered a continuum; such that individuals may be more or less willing to contribute time or resources in various contexts, such as charitable initiatives or situations requiring task helping (Halabi, Chernyak-Hai, & Nadler, 2024; Kogut & Ritov, 2005, 2007).

Research across different fields finds that perceptions of empathy are linked to greater levels of subsequent cooperation, compliance, and willingness to take action. For example, in the context of healthcare, perceptions of provider empathy can lead patients to feel greater trust, take action towards their physical health, and comply with recommendations (Gu et al., 2015; Hojat et al., 2010). In the field of social psychology, perceptions of empathy have been associated with

greater relationship satisfaction and less conflict (Cramer & Jowett, 2010), potentially enabling a greater frequency of cooperative behaviors. Other researchers have found that in the context of leadership, perceived empathy is associated with greater cooperation (Núncio, 2020). Moreover, when allies are perceived to be sincere, it helps others “to identify with the movement and increase their willingness to take collective action against inequality (Moser & Wiley: 2).” Taken together, it’s likely changes in perceptions of a requester’s empathy could influence a recipient to be more or less willing to help with the social support being requested of them.

A recipient’s willingness to help with a social support request could also be impacted by the extent to which they evaluate the request as conversationally appropriate. Because perceptions of appropriateness involve evaluations of adherence to norms, research suggests that subsequent levels of cooperation are highly likely to be affected in response to adherence to norms (e.g., Molina, Nee, & Holm, 2023; Rossano, 2012; Shank et al., 2019). This could be the case for several reasons. For example, perceptions of appropriateness have been associated with changes in trust (Cheshin, Amit, & Van Kleef, 2018), which could then impact whether or not a recipient is willing to be helpful in the context of a social support request. Perceived appropriateness may also be associated with judgements about a requester’s intentions, the interpretation of which could change a recipient’s willingness to enact a social support request (Wooten, 2009). Other research has similarly found that in the context of communication, perceptions of appropriateness play a critical mediating role between a message and an individual’s reaction (Glikson, Cheshin, & Kleef, 2018). In the context of a social support request, changes in perceptions of the appropriateness of others could therefore have long-term implications for a recipient’s future willingness to help.

Hypothesis 3a: The positive indirect effect between a relational (vs. instrumental) social support request and a recipient's willingness to help via perceptions of empathy is weaker when the recipient's level of depression stigma is higher vs. lower.

Hypothesis 3b: The positive indirect effect between a relational (vs. instrumental) social support request and a recipient's willingness to help via perceptions of appropriateness is weaker when the recipient's level of depression stigma is higher vs. lower.

Changes in perceptions of empathy and appropriateness could also have long-term behavioral implications in the workplace. Specifically, in the context of a social support request, fluctuations in these perceptions could alter a recipient's increased willingness to disclose a mental health challenge in the future. Disclosure refers to “the process of intentionally communicating information about one's nonvisible stigmatized identity verbally to another person and may include thoughts, feelings, and experiences” pertaining to that identity (Follmer et al., 2020). Importantly, disclosure is typically regarded to sit on a continuum—much like willingness to help—where a greater or “full” disclosure could involve the sharing a greater amount of information about one's identity (Ragins, Singh, & Cornwell, 2007). Importantly, the act of disclosure is often considered in advance of the disclosure event; an individual who is considering potentially disclosing a mental health condition may assess their social environment prior to revealing potentially stigmatizing information about themselves to others (Jones & King, 2014).

Prior research suggests that perceptions of empathy may be a necessary condition for a person to feel comfortable disclosing a mental health condition, particularly in the workplace. Specifically, Follmer et al. (2020)'s review on disclosures of stigmatized identities found that “several studies demonstrated that perceived support from both supervisor and coworkers was

instrumental in deciding to disclose” (174). Beyond supervisors and coworkers, organizational climates that are “perceived as nondiscriminatory toward LGBT individuals” have been associated with disclosures of sexual orientation (Follmer et al., 2020: 174). Aligned with these findings, research has also found that in the absence of perceived empathy, such as when discrimination is present, individuals are more likely to conceal their mental health conditions (Peterson, Currey, & Collings, 2011). Therefore, it’s possible that in the context of a conversation about mental health, changes in perceptions of empathy could lead a recipient to be more willing to disclose a mental health condition in the future.

Additionally, fluctuating perceptions of a requester’s appropriateness could also impact a recipient’s inclinations to disclose a mental health condition in the future. For example, a study on self-disclosure and technology found that “for negative or private disclosures, participants were more likely to select modalities that were considered most appropriate.” (Oeldorf-Hirsch & Nowak, 2018: 125). Research specific to the workplace context support this idea, and has found that “individuals with disabilities may be less likely to request accommodations if they believed such requests would be perceived as a burden or inappropriate to important others in the workplace” (Santuzzi & Waltz, 2016: 1118). Research on managerial depression stigma argues that judgements of appropriateness are likely to be highly embedded in the decision to disclose a mental health condition at work (Martin, 2010). In the context of a social support request, changes in perceptions of the appropriateness of others could therefore have long-term implications for a recipient’s future willingness to disclose.

Hypothesis 4a: The positive indirect effect between a relational (vs. instrumental) social support request and a recipient’s willingness to disclose via perceptions of empathy is weaker when the recipient’s level of depression stigma is higher vs. lower.

Hypothesis 4b: The positive indirect effect between a relational (vs. instrumental) social support request and a recipient's willingness to disclose via perceptions of appropriateness is weaker when the recipient's level of depression stigma is higher vs. lower.

OVERVIEW OF METHODS

Testing the hypotheses for this theoretical model presents a methodological challenge. Because it would be both unrealistic and unethical to ask employees at an organization to share their coworkers' mental health information for research purposes, I relied on scenario experiments, which have been previously used for similarly sensitive research questions (e.g., Kundro, Burke, Grandey, & Sayre, 2022). Scenario experiments, also called experimental vignettes, enable a high level of internal validity by limiting alternative explanations, and providing greater evidence of causality (Aguinis & Bradley, 2014). Additionally, experimental vignette methodology enables this research to test a highly specific phenomenon in a controlled manner, without having to consider factors such as organization-level differences in mental health-related benefits and resources. Further, I followed recommendations from Aguinis and Bradley (2014) to increase the level of realism in the scenarios. All scenarios included graphics, such as photos that helped participants visualize the setting, and one of the studies included screenshots of text messages which sought to manipulate a conversation between coworkers in a more realistic way (see Appendix A).

I conducted three studies to test my hypotheses. In Study 1, using a field sample, I test the front-end of the model by manipulating the type of social support request (relational vs. instrumental) while conceptualizing depression stigma as a trait or individual difference driven by an employee's personal feelings, attitudes, and beliefs. To address alternative explanations for the findings in Study 1, as well as test the entire theoretical model, I conducted a second scenario

experiment by manipulating social support behaviors using an online panel sample. Additionally, to better understand whether organization-based drivers of depression stigma could also create the effects seen in Study 1 and 2, Study 3 employs a 2X2 scenario experiment in which I manipulate depression stigma as a contextual factor. All studies were approved by the University of Washington's Institutional Review Board under STUDY00020820.

STUDY 1

I sought to first test my hypotheses in a public field setting, in which I recruited adult employees who work full-time. To accomplish this, I, along with five research assistants¹, went to a variety of public spaces (shopping centers, parks, outdoor campuses at universities, etc.) and asked people if they would be willing to take a one-time, anonymous survey. Similar practices have been conducted by research using scenario-based experiments (e.g., Zhao & Epley, 2022). Individuals who said yes were provided with a QR code/link to a Qualtrics survey. The survey contained a scenario experiment with a single manipulation (social support request: relational vs. instrumental), followed by questions measuring the moderator, outcome, control, and demographic variables. A minimum of 77 participants needed to allow for 80% power to detect a small-medium effect size ($f^2 = .15$) in a regression equation with three predictor variables (IV, moderator, interaction variable) according to G*Power. Over the course of a month, we obtained 171 total responses, of which, 166 passed an initial attention check which asked respondents to select a specific answer from the options provided. Of these 166, only 102 confirmed that they met both criteria for the survey (working full-time, age 18 and over), and 100 people ($M_{\text{age}} = 37.18$, $SD = 12.86$, 54% female) consented to taking the survey, yielding 86 complete responses in which all questions, including demographic and control questions were answered. Participants

¹ I'd like to thank my research assistants for their participant recruitment efforts: Nathan Lin, Marina Oljaca, Anne Qiu, Madeline Tsai, and Taran Wan.

identified as White (76%), Black or African American (2%), Hispanic or Latino (5%), Asian (17%), American Indian (1%), and Pacific Islander (2%).

Manipulation

Each participant was asked to imagine working for a management consulting company, in which they had two coworkers named Alex and Jesse. Participants were specifically asked to imagine taking a lunch break at work, and during this break, getting approached by one of their coworkers (Alex). In the scenario, the participant is told by Alex that their fellow coworker is experiencing depression; during this conversation, Alex suggests that the participant take action. In the relational condition, Alex says "...I was thinking we should each reach out to Jesse and spend some time with them. It would be good to show them some kindness and be accommodating of their personal situation and challenges outside of work." In the instrumental condition, Alex says "...I was thinking we should each take on extra meetings and work to keep our clients from dealing with potential issues. It would be good to keep up the day-to-day functioning of our department and protect its reputation. Following these two manipulations, survey participants were first presented with manipulation checks and then presented with measures and controls. Please see Appendix A for scenario study materials and Appendix B for the full measures.

Manipulation Checks. To test the effectiveness of the social support request manipulation, participants were asked about the extent to which they agreed (1=strongly disagree, 7=strongly agree) that their coworker suggested that they engage in items indicative of interpersonal citizenship behaviors ($\alpha = .78$) and organizational citizenship behaviors ($\alpha = .74$) (Lee & Allen, 2002). An example item read: "*Alex asked me to... take action to protect the work unit from potential problems.*"

Measures

All measures used a seven-point Likert scale (1=strongly disagree and 7=strongly agree) unless otherwise noted. For the entire set of items in each original and adapted scale, see Appendix.

Depression stigma. Participants were asked about the extent to which they agreed (1=strongly disagree, 7=strongly agree) with items pertaining to a scale developed to measure the affective dimension of stigma ($\alpha = .75$) (Martin, 2010). An example item read: “Working with depressed employees is stressful.”

Perceived empathy. I measured perceived empathy by adapting the scale for perceived empathetic responses, which includes two dimensions of empathy: understanding and concern (Wahlers et al., 2024). An example item from the scale ($\alpha = .87$) is as follows: “Alex understands how Jesse is feeling.”

Perceived appropriateness. I measured perceived appropriateness by adapting the ‘general’ dimension of the scale for conflict strategy appropriateness (Canary & Spitzberg, 1987). An example item from the scale ($\alpha = .93$) is as follows: “Everything Alex said was appropriate.”

Willingness to help (for supplemental analysis). I measured willingness to help (i.e., a willingness to follow through on the suggested social support behavior) by asking the participants to indicate their agreement with the following statement: “I would be willing to do what Alex requested.” This approach is consistent with prior approaches for measuring willingness to help (e.g., Nadler & Chernyak-Hai, 2014).

Willingness to disclose (for supplemental analysis). Consistent with the approach described above, I measured willingness to disclose (i.e., a willingness to disclose a future

mental health condition if needed) by asking the participants to indicate their agreement with the following statement: “I would be willing to disclose a personal mental health challenge with my coworkers.”

Controls & Demographics. I asked participants several questions about their familiarity with depression, because familiarity can influence employee attitudes and behavioral responses in the context of working with another employee with depression (Martin, 2010). Specifically, I asked participants the following three binary (yes or no) questions: 1) Have you ever been diagnosed with depression? 2) Have any of your close friends or family members ever been diagnosed with depression? 3) Have you ever worked with an employee who disclosed that they had been diagnosed with depression? Additionally, I asked participants to share their age, gender, race, and job title.

Results

Manipulation checks. Participants in relational condition ($M = 3.00$, $SD = 1.36$) rated the OCB-O items lower than participants in the instrumental condition ($M = 4.90$, $SD = 1.03$, $F_{(1,88)} = 56.0$, $p < .001$). Additionally, participants in relational condition ($M = 4.93$, $SD = .91$) rated the OCB-I items higher than participants in the instrumental condition ($M = 4.32$, $SD = 1.38$, $F_{(1,88)} = 5.96$, $p < .001$).

Hypothesis Testing. Descriptive statistics and correlations are presented in Table 9. The four-factor model resulted in adequate fit indices ($\chi^2 = 116.996$, CFI = .915, RMSEA = .104, SRMR = .103); the four-factor model provided a better fit than a three-factor model in which the items for the two mediators (empathy and appropriateness) were loaded onto a single factor ($\Delta\chi^2 < .01$). I tested the front end of the model using OLS regression analysis in R (see Table 10). Hypothesis 1 predicted that the positive association between a relational (vs. instrumental)

request and perceptions of empathy is weaker when depression stigma is higher vs. lower. The interaction between the social support request manipulation and depression stigma in predicting perceptions of empathy was significant with controls ($b = -.48, p = .03$) and without ($b = -.49, p = .03$). Hypothesis 2 predicted that the positive association between a relational (vs. instrumental) request and perceptions of appropriateness is weaker when stigma is higher vs. lower. The interaction between the social support request manipulation and depression stigma in predicting appropriateness was not significant with controls ($b = -.05, p = .87$) or without ($b = -.03, p = .90$). Thus, Hypothesis 2 was not supported, however Hypothesis 1 was supported with depression stigma as a moderating variable.

Supplemental Analysis

Although the sample size for Study 1 is considered insufficient for formal hypothesis testing of indirect effects or conditional indirect effects (Qin, 2024), I conducted an exploratory path analysis of indirect and conditional indirect effects were directionally consistent with my hypotheses. Additionally, I assessed which indirect effects were stronger vs. weaker. In doing so, I found a significant indirect effect of relational social support request on willingness to help via appropriateness (*indirect effect* = 1.05, $SE = .23$, 95% confidence interval [CI] [.69, 1.51]). The remaining indirect pathways, and remaining conditional indirect pathways, were not significant in this sample. These results suggest that the indirect pathway between relational request and willingness to help via appropriateness could be more important and influential than the other hypothesized pathways.

Discussion

Study 1 provides preliminary evidence that a relational social support request is likely to be interpreted more favorably than an instrumental social support request. Study 1 also provides

evidence that a recipient's level of depression stigma may influence the extent to which the social support request is evaluated and interpreted. Interestingly, although respondents who reported higher levels of depression stigma were more likely to perceive the requester as *empathetic* regardless of the type of social support request, a higher level of depression stigma did not play a significant role in evaluating a relational request as more *appropriate* than an instrumental request. Importantly, supplemental analysis suggested that perceptions of appropriateness may be more critical than perceptions of empathy if a requester would like the recipient to cooperate with their request.

According to my theorizing, depression stigma could be impacting participants' evaluations of relational vs. instrumental requests in several ways, such as through a heightened concern for threat or through the belief that depression is entirely controllable. Because of this, it's not completely clear why—in the face of higher levels of depression stigma—a relational request is not substantially more favorable than an instrumental request. Importantly, depression stigma was measured using items for the affective dimension of depression stigma (example item: “working with depressed employees is stressful” from Martin (2010)). It's accordingly possible that participants with higher level of depression stigma employees evaluated the relational request as less favorable specifically because of the content of the relational social support request. In the scenario in Study 1, the relational request involved a request to “spend some time” with the depressed employee, but the instrumental request did not. Because of the nature of this request, a possible explanation for the findings from Study 1 is that individuals with high levels of depression stigma (as opposed to low levels) may evaluate a relational request as less favorable because it involves having to be around a depressed individual, while also evaluating an instrumental request as more favorable because it involves a social support

behavior that does not involve having to be around a depressed individual. To address this possibility and provide a greater understanding of the role of depression stigma, I conducted a Study 2 in which the relational and instrumental requests did not differ substantially in the scope and nature of the requests, and neither request asked the recipient to spend time with the depressed employee. To further remove any implications from the scenario about spending time with the depressed employee, I created a scenario setting for Study 2 in which the characters work largely independently of one another. Additionally, Study 2 tests the full theoretical model with a larger sample; this practice is consistent with prior research (e.g., Kundro, 2023) that rely on an initial low-powered field data to solely test the front end of the model (e.g., moderation effects).

STUDY 2

Similar to Study 1, I conducted a second scenario experiment in which I manipulated the social support behavior request, and I used a different scenario than the one presented in Study 1. I used the Prolific research participant pool to recruit 250 complete responses (a sample size consistent with studies employing a moderated-mediation model, e.g., Bae, 2022). I specifically recruited participants who met the criteria of being a full-time adult employee for a traditional organization in the United States (working over 30 hours per week, excluding individuals who work in freelance, self-employed, gig work, or individual contracting positions). I collected data at a single time point. I included a preliminary attention check, where participants were asked to select the word ‘Disagree’ from the list of possible answers. I included a second filtering question to ensure that no participants were students or employees at the University of Washington. Of the 254 Prolific users who were recruited, 249 participants ($M_{\text{age}} = 40$, $SD = 11$, 49% female) consented to participate, passed the attention check and filtering question, and

completed the survey. Participants reported their race, in a question where multiple options could be selected, as White (73%), Black or African American (15%), Hispanic or Latino (9%), Asian (8%), and other (3%).

Manipulation

Each participant was asked to imagine working for a financial services company, in which they do most of their work alone. Participants were told they have colleagues in nearby offices who occasionally drop in for a chat, and two of these colleagues are named Casey and Ali. Participants were specifically asked to get visited in their office by their colleague, Casey. In the scenario, the participant is told by Casey that their fellow colleague is experiencing depression; during this conversation, Casey suggests that the participant take action. In the relational request condition, Casey says "...I was thinking we should reach out to Ali and offer to substitute for them at the college business club they advise and volunteer at on Friday afternoons. That way we can be accommodating and helpful given Ali's personal situation and all their responsibilities outside of work." In the instrumental request condition, Casey says "...I was thinking we should reach out to our director and offer to substitute for Ali at our company's booth at the networking event on Friday afternoons. That way we can make sure the booth functions smoothly so there are no problems with it or the company's reputation." Following these two manipulations, survey participants were first presented with manipulation checks and then presented with measures and controls for the purpose of testing the entire theoretical model.

Manipulation Checks. To test the effectiveness of the social support request manipulation, participants were asked about the extent to which they agreed (1=strongly disagree, 7=strongly agree) that their team member suggested that they engage in items indicative of interpersonal citizenship behaviors ($\alpha = .87$) and organizational citizenship

behaviors ($\alpha = .81$) (Lee & Allen, 2002). An example item read: “*Casey asked me to... take action to protect the work unit from potential problems.*”

Measures

The following outcome variables were measured with the same scales as used in Study 1. However, in Study 2, I adjusted the items to include the names of the characters used in the scenario from Study 1.

Depression stigma. Participants were asked about the extent to which they agreed (1=strongly disagree, 7=strongly agree) with items pertaining to a scale developed to measure the affective dimension of stigma ($\alpha = .90$) (Martin, 2010). An example item read: “Working with depressed employees is stressful.”

Perceived empathy. I measured perceived empathy by adapting the scale for perceived empathetic responses, which includes two dimensions of empathy: understanding and concern (Wahlers et al., 2024). An example item is as follows: “Casey understands how Ali is feeling” (1=strongly disagree and 7=strongly agree; $\alpha = .94$).

Perceived appropriateness. I measured perceived appropriateness by adapting the ‘general’ dimension of the scale for conflict strategy appropriateness (Canary & Spitzberg, 1987). An example item is as follows: “Everything Casey said was appropriate” (1=strongly disagree and 7=strongly agree; $\alpha = .96$).

Willingness to help. I measured willingness to help (i.e., a willingness to follow through on the suggested social support behavior) by asking the participants to indicate their agreement with the following statement: “I would be willing to do what Casey requested” (1=strongly disagree and 7=strongly agree). This approach is consistent with prior approaches for measuring willingness to help (e.g., Nadler & Chernyak-Hai, 2014).

Willingness to disclose. Consistent with the approach described above, I measured willingness to disclose (i.e., a willingness to disclose a future mental health condition if needed) by asking the participants to indicate their agreement with the following statement: “*If I worked at this tech company... I would be willing to disclose a personal mental health challenge with my coworkers*” (1=strongly disagree and 7=strongly agree).

Controls & Demographics. I asked participants the same set of questions asked in Study 1 to indicate levels of familiarity with depression. Additionally, I included items for the cognitive dimension of stigma (Martin, 2010) for the purpose of controlling for participants’ individual beliefs about depressed employees, which may both influence the extent to which they adopt others’ stigmatized beliefs as well as their behavioral intentions in a depression-related scenario. Additionally, I asked participants to share their age, gender, ethnicity, and job title to better understand my sample.

Results

Manipulation checks. Participants in relational request condition ($M = 4.07$, $SD = 1.64$) rated the OCB-O items lower than participants in the instrumental request condition ($M = 5.04$, $SD = 1.13$, $F_{(1,247)} = 29.43$, $p < .001$). Additionally, participants in the relational request condition ($M = 5.37$, $SD = 1.11$) rated the OCB-I items higher than participants in the instrumental condition ($M = 4.37$, $SD = 1.65$, $F_{(1,247)} = 31.61$, $p < .001$).

Descriptive statistics and correlations are presented in Table 11. I first conducted a confirmatory factor analysis using the Lavaan package in R. The six-factor model resulted in good fit indices ($\chi^2 = 322.974$, $CFI = .949$, $RMSEA = .08$, $SRMR = .06$); the six-factor model provided a better fit than a five-factor model in which the items for the two mediators (empathy and appropriateness) were loaded onto a single factor ($\Delta\chi^2 < .01$). I then tested the entire

theoretical model using structural equation modeling in R via the Lavaan package, in which I conducted bootstrapping analysis with 5,000 replications (Preacher & Hayes, 2008). Fit indices for this theoretical model ($\chi^2 = 886.05$, CFI = .34, RMSEA = .34, SRMR = .28) indicated that the hypothesized relationships could be substantially improved to better fit the data. I used the Lavaan package in R to conduct path analysis with 5,000 bootstrapped samples to test my hypotheses. Results, including controls, were as follows (see Table 12).

Hypothesis 1 predicted that the positive association between a relational (vs. instrumental) request and perceptions of empathy is weaker when depression stigma is higher vs. lower. The interaction between the social support request manipulation and the depression stigma manipulation in predicting perceptions of empathy was significant ($b = -.43, p = .00$). Hypothesis 2 predicted that the positive association between a relational (vs. instrumental) request and perceptions of appropriateness is weaker when stigma is higher vs. lower. The interaction between the social support request manipulation and the stigma manipulation in predicting appropriateness was significant ($b = -.41, p = .00$). Both Hypothesis 1 and Hypothesis 2 were therefore supported.

I then tested the conditional indirect pathways predicting willingness to help. Hypothesis 3a predicted that the positive indirect effect between a relational (vs. instrumental) request and a recipient's willingness to help via perceptions of empathy is weaker when depression stigma is higher vs. lower. When depression stigma was higher, relational requests did not indirectly predict willingness to help via the empathy pathway (*indirect effect* = 0.11, *SE* = .07, 95% confidence interval [CI] [-.01, .27]). When depression stigma was lower, relational requests also did not indirectly predict willingness to help via the empathy pathway (*indirect effect* = .28, *SE* = .16, 95% confidence interval [CI] [-.02, .61]). Hypothesis 3a was therefore not supported.

Hypothesis 3b predicted that the positive indirect effect between a relational (vs. instrumental) request and a recipient's willingness to help via perceptions of appropriateness is weaker when depression stigma is higher vs. lower. When depression stigma was higher, relational requests did not indirectly predict willingness to help via the appropriateness pathway (*indirect effect* = 0.29, *SE* = .17, 95% confidence interval [CI] [-.04, .64]). However, when depression stigma was lower, relational requests did indirectly predict willingness to help via the appropriateness pathway (*indirect effect* = .97, *SE* = .24, 95% confidence interval [CI] [.55, 1.46]). The difference between these indirect effects was significant (*difference* = .68, *SE* = .27, 95% confidence interval [CI] [.20, 1.25]). Hypothesis 3b was supported.

Hypothesis 4a predicted that the positive indirect effect between a relational (vs. instrumental) request and a recipient's willingness to disclose via perceptions of empathy is weaker when depression stigma is higher vs. lower. When depression stigma was higher, relational requests did not indirectly predict willingness to disclose via the empathy pathway (*indirect effect* = 0.10, *SE* = .08, 95% confidence interval [CI] [-.05, .27]). When depression stigma was lower, relational requests did not indirectly predict willingness to disclose via the empathy pathway (*indirect effect* = .25, *SE* = .19, 95% confidence interval [CI] [-.12, .61]). Therefore, hypothesis 4a was not supported. Hypothesis 4b predicted that the positive indirect effect between a relational (vs. instrumental) request and a recipient's willingness to disclose via perceptions of appropriateness is weaker when depression stigma is higher vs. lower. When depression stigma was higher, relational requests did not indirectly predict willingness to disclose via the appropriateness pathway (*indirect effect* = 0.26, *SE* = .16, 95% confidence interval [CI] [-.03, .58]). When depression stigma was lower, relational requests did indirectly predict willingness to disclose via the appropriateness pathway (*indirect effect* = 0.86, *SE* = .22,

95% confidence interval [CI] [.47, 1.32]). The difference between these indirect effects was significant (*difference* = .61, SE = .24, 95% confidence interval [CI] [.19, 1.12]). Hypothesis 4b was therefore supported.

Discussion

Study 2 provided further (albeit partial) evidence for the theoretical model, even after changing the scenario to create relational and instrumental requests that were more comparable in scope. Depression stigma still played a moderating role, even after removing the “time spent” with the depressed employee as a core component of the relational request, to which recipients with higher levels of depression stigma may react especially strongly. These results from Study 2 suggest that recipients with higher levels of depression stigma may be less sensitive to the ways in which a depressed employee is responded to in the workplace, as a result of the recipient’s attitudes and beliefs about depression (not just their behavioral preferences to avoid a depressed employee). Together, Study 1 and Study 2 find that employees with more depression stigma are less likely to differentiate between instrumental and relational requests, suggesting that they may be more likely to tolerate actions that override a depressed employee’s autonomy or agency over their work domain.

Study 2’s findings differed from Study 1’s findings with regards to the model’s moderation effects. Unlike the findings from Study 1, Study 2 revealed that a recipient’s level of depression stigma could moderate the relationship between a relational request (vs. an instrumental request) and perceptions of *both* empathy and appropriateness. However, similar to the supplemental findings in Study 1, Study 2 only found evidence for indirect effects through the appropriateness pathway. In other words, Study 2 suggests that for a social support request to lead to subsequent action (i.e., complying with the social support request), a recipient must

perceive it as *appropriate*; perceiving it as empathetic is not sufficient. However, Study 2 also reveals an important nuance, that is that perceptions of appropriateness may not matter if the recipient has higher levels of stigma. Because Study 2 found significant conditional effects for both appropriateness pathways, Study 2 suggests that requesting social support from a recipient with a high level of stigma is not likely to result in any social support behaviors on their part. However, the act of making the request itself could alter the high stigma recipient's perceptions of the requester.

The analysis for Study 2 statistically controlled for both demographic characteristics and other relevant individual differences (e.g., whether the recipient has previously experienced depression or worked with someone who has depression). However, there could still be alternative explanations for the findings from Study 1 and Study 2. For example, if a recipient has strong beliefs about conversations surrounding mental health—and how these conversations are inherently inappropriate for the workplace—then it's possible that these beliefs (which may coincide with stigmatized feelings and attitudes about depression) could be driving the moderation effects attributed to depression stigma. To address this possibility, and control for unobserved variables that could be driving the effects of depression stigma, I conducted a Study 3 which seeks to manipulate depression stigma within the design of the study. If my hypotheses are supported when depression stigma is manipulated, then this may provide greater evidence that the moderation effects observed in Study 1 and Study 2 are in fact attributable to depression stigma as opposed to other individual attributes of the recipient.

A scenario study which manipulates depression stigma may be insightful in other ways. Although depression stigma is regarded as an individual's personal belief, feeling or attitude, it is not necessarily a static or unmalleable belief. Some fields or organizations may propagate

implicit beliefs that employees with depression should not be working (an indicator of depression stigma, according to Martin (2010)), because employees who disclose mental health conditions, such as depression, could be penalized due to industry or organizational regulations (Saddawi-Konefka et al., 2021). Study 3 accordingly seeks to explore whether depression stigma that is externally driven could play a similar, critical role in how efforts to rally social support behaviors, on behalf of a depressed employee, could be perceived and acted upon.

STUDY 3

Study 3 utilized a 2 (social support request: relational vs. instrumental) X 2 (depression stigma: low vs. high) experiment in which study participants were randomly assigned one of four possible scenarios. Consistent with Study 2, I used the Prolific research participant pool to recruit at least 250 complete responses from participants who met the criteria of being a full-time adult employee for a traditional organization in the United States (working over 30 hours per week, excluding individuals who work in freelance, self-employed, gig work, or individual contracting positions). I collected data at a single time point. I included a preliminary attention check, where participants were asked to select the word ‘Disagree’ from the list of possible answers. I included a second filtering question to ensure that no participants were students or employees at the University of Washington. Of the 269 Prolific users who were recruited, 253 participants ($M_{age} = 39$, $SD = 12$, 56% female) consented to participate, passed the attention check and filtering question, and completed the survey. Participants reported their race, in a question where multiple options could be selected, as White (70%), Black or African American (25%), Hispanic or Latino (7%), Asian (4%), and other (1%).

Manipulation

Each participant was asked to imagine being employed as a part of a sales team for a small tech company. I first manipulated depression stigma in the introductory part of the scenario, by instructing participants to imagine a conversation with the supervisor of the sales team. Specifically, I asked them to imagine being told by their supervisor in the hypothetical scenario, that, "...if you're having to take an antidepressant, then that's just not going to work here," indicating a higher level of cognitive depression stigma, according to Martin (2010). In the low-stigma condition, I instructed participants to imagine being told that "...if you haven't worked in this field before, then that's just not going to work here."

After the stigma manipulation, participants were presented with a screenshot of text messages (see Appendix A) sent by a fellow sales team member (Riley). The text messages indicated that a mutual team member (Adrien), was experiencing depression; the text messages also suggested one of two types of social support behaviors. In the relational request condition, the text messages read "...I was thinking we should each reach out to Adrien and spend some time with them. It would be good to show them some kindness and be accommodating of their personal situation and challenges outside of work." In the instrumental request condition, the text messages read "...I was thinking we should each take on extra meetings and work to keep our clients from dealing with potential issues. It would be good to keep up the day-to-day functioning of our team and protect the company's reputation. Following these two manipulations, survey participants were first presented with manipulation checks and then presented with measures and controls for the purpose of testing the entire theoretical model.

Manipulation Checks. To test the effectiveness of the depression stigma manipulation, participants were asked about the extent to which they agreed (1=strongly disagree, 7=strongly agree; $\alpha = .92$) that the leadership of the tech company endorsed beliefs consistent with the

cognitive dimension of depression stigma (Martin, 2010). An example leading item read: “According to leadership in this tech company... employees needing antidepressants should not be working.” To test the effectiveness of the social support request manipulation, participants were asked about the extent to which they agreed (1=strongly disagree, 7=strongly agree) that their team member suggested that they engage in items indicative of interpersonal citizenship behaviors ($\alpha = .82$) and organizational citizenship behaviors ($\alpha = .84$) (Lee & Allen, 2002). An example item read: “Riley asked me to... take action to protect the work unit from potential problems.”

Measures

The following outcome variables were measured with the same scales as used in Study 1. However, similar to Study 2, Study 3’s items were adjusted to the names of the characters used in the scenario from Study 3.

Perceived empathy. I measured perceived empathy by adapting the scale for perceived empathetic responses, which includes two dimensions of empathy: understanding and concern (Wahlers et al., 2024). An example item is as follows: “Riley understands how Adrien is feeling” (1=strongly disagree and 7=strongly agree; $\alpha = .93$).

Perceived appropriateness. I measured perceived appropriateness by adapting the ‘general’ dimension of the scale for conflict strategy appropriateness (Canary & Spitzberg, 1987). An example item is as follows: “Everything Riley said was appropriate” (1=strongly disagree and 7=strongly agree; $\alpha = .92$).

Willingness to help. I measured willingness to help (i.e., a willingness to follow through on the suggested social support behavior) by asking the participants to indicate their agreement with the following statement: “I would be willing to do what Riley requested” (1=strongly

disagree and 7=strongly agree). This approach is consistent with prior approaches for measuring willingness to help (e.g., Nadler & Chernyak-Hai, 2014).

Willingness to disclose. Consistent with the approach described above, I measured willingness to disclose (i.e., a willingness to disclose a future mental health condition if needed) by asking the participants to indicate their agreement with the following statement: “*If I worked at this tech company... I would be willing to disclose a personal mental health challenge with my coworkers*” (1=strongly disagree and 7=strongly agree).

Controls & Demographics. I asked participants the same set of questions asked in Study 1 to indicate levels of familiarity with depression. Additionally, I included items for the cognitive dimension of stigma (Martin, 2010) for the purpose of controlling for participants’ individual beliefs about depressed employees, which may both influence the extent to which they adopt others’ stigmatized beliefs as well as their behavioral intentions in a depression-related scenario. Additionally, I asked participants to share their age, gender, ethnicity, and job title to better understand my sample.

Results

Manipulation checks. Participants in the relational request condition ($M = 3.73$, $SD = 1.89$) rated the OCB-O items lower than participants in the instrumental request condition ($M = 5.22$, $SD = 1.03$, $F_{(1,251)} = 60.6$, $p < .001$). Additionally, participants in relational request condition ($M = 5.51$, $SD = 1.13$) rated the OCB-I items higher than participants in the instrumental request condition ($M = 5.16$, $SD = 1.23$, $F_{(1,251)} = 5.61$, $p < .001$). Participants in the high stigma condition ($M = 4.21$, $SD = 1.85$) rated the high depression cognitive stigma items higher than participants in the low stigma condition ($M = 2.69$, $SD = 1.38$, $F_{(1,251)} = 55.09$, $p < .001$).

Descriptive statistics and correlations are presented in Table 13. I first conducted a confirmatory factor analysis using the Lavaan package in R. The six-factor model resulted in reasonable fit indices ($\chi^2 = 162.560$, CFI = .943, RMSEA = .11, SRMR = .038); the six-factor model provided a better fit than a five-factor model in which the items for the two mediators (empathy and appropriateness) were loaded onto a single factor ($\Delta\chi^2 < .01$). I then tested the entire theoretical model using structural equation modeling in R via the Lavaan package, in which I conducted bootstrapping analysis with 5,000 replications (Preacher & Hayes, 2008). Fit indices for this theoretical model ($\chi^2 = 551.10$, CFI = .33, RMSEA = .27, SRMR = .14) indicated that the hypothesized relationships could be improved to better fit the data. I used the Lavaan package in R to conduct path analysis with 5,000 bootstrapped samples to test my hypotheses. Results, including controls (see Table 14), were as follows.

Hypothesis 1 predicted that the positive association between a relational (vs. instrumental) request and perceptions of empathy is weaker when depression stigma is higher vs. lower. The interaction between the social support request manipulation and the depression stigma manipulation in predicting perceptions of empathy was not significant ($b = .18$, $p = .49$). Hypothesis 1 was therefore not supported. Hypothesis 2 predicted that the positive association between a relational (vs. instrumental) request and perceptions of appropriateness is weaker when stigma is higher vs. lower. The interaction between the social support request manipulation and the stigma manipulation in predicting appropriateness was not significant ($b = .33$, $p = .23$). Thus, Hypothesis 2 was not supported.

Hypothesis 3a predicted that the positive indirect effect between a relational (vs. instrumental) request and a recipient's willingness to help via perceptions of empathy is weaker when depression stigma is higher vs. lower. When depression stigma was higher, relational

requests did not indirectly predict willingness to help via the empathy pathway (*indirect effect* = -0.04, *SE* = .05, 95% confidence interval [CI] [-.15, .06]). When depression stigma was lower, relational requests also did not indirectly predict willingness to help via the empathy pathway (*indirect effect* = -0.03, *SE* = .05, 95% confidence interval [CI] [-.12, .06]). Hypothesis 3b predicted that the positive indirect effect between a relational (vs. instrumental) request and a recipient's willingness to help via perceptions of appropriateness is weaker when depression stigma is higher vs. lower. When depression stigma was higher, relational requests did indirectly predict willingness to help via the appropriateness pathway (*indirect effect* = 0.37, *SE* = .15, 95% confidence interval [CI] [.09, .66]). When depression stigma was lower, relational requests did not indirectly predict willingness to help via the appropriateness pathway (*indirect effect* = .09, *SE* = .18, 95% confidence interval [CI] [-.28, .41]). However, the differences between these indirect effects were not significant (*difference* = -.28, *SE* = .24, 95% confidence interval [CI] [-.79, .16]). Therefore, there was marginal support for Hypothesis 3b.

Hypothesis 4a predicted that the positive indirect effect between a relational (vs. instrumental) request and a recipient's willingness to disclose via perceptions of empathy is weaker when depression stigma is higher vs. lower. When depression stigma was higher, relational requests did indirectly predict willingness to disclose via the empathy pathway (*indirect effect* = 0.31, *SE* = .14, 95% confidence interval [CI] [.08, .60]). When depression stigma was lower, relational requests also did indirectly predict willingness to disclose via the empathy pathway (*indirect effect* = .23, *SE* = .12, 95% confidence interval [CI] [.03, .51]). Hypothesis 4a was therefore not supported. Hypothesis 4b predicted that the positive indirect effect between a relational (vs. instrumental) request and a recipient's willingness to disclose via perceptions of appropriateness is weaker when depression stigma is higher vs. lower. When

depression stigma was higher, relational requests did marginally indirectly predict willingness to disclose via the appropriateness pathway (*indirect effect* = 0.14, *SE* = .08, 95% confidence interval [CI] [.00, .30]). When depression stigma was lower, relational requests did not indirectly predict willingness to disclose via the appropriateness pathway (*indirect effect* = 0.03, *SE* = .07, 95% confidence interval [CI] [-.12, .18]). However, the differences between these indirect effects were not significant (*difference* = -.10, *SE* = .10, 95% confidence interval [CI] [-.35, .07]). Hypothesis 4b was therefore not supported. Table 15 of hypotheses and results from this study, as well as Study 1 and Study 2.

Supplemental Analysis

Unlike Study 1 and Study 2, in which depression stigma was operationalized using participants' responses to a depression stigma scale, Study 3 sought to manipulate cognitive depression stigma within the experimental scenario design. However, Study 3's results find that the stigma manipulation—though an effective manipulation—did not significantly moderate the relationship between the social support request manipulation and the mediators in the theoretical model (perceptions of empathy and perceptions of appropriateness). Given the possibility that stigma as a manipulation may not be as influential as participants' own individual stigmatizing beliefs, I conducted a regression analysis using the depression stigma measure (a control variable used for the primary analysis) as a moderating variable. In a regression predicting perceptions of empathy, the interaction between the social support request manipulation and the stigma measure was significant ($b = -.18, p = .037$), even after controlling for the stigma manipulation as well as other demographic/control variables ($b = -.18, p = .046$). In a regression predicting perceptions of appropriateness, the interaction between the social support request manipulation and the

stigma scale was marginally significant ($b = -.16, p = .08$), even after controlling for the stigma manipulation as well as other demographic/control variables ($b = -.17, p = .074$).

Discussion

Study 3 suggests that the primary interaction effects in my theoretical model (Hypothesis 1 & 2), which rely on depression stigma as a moderator, are likely to be driven more by a recipient's individual beliefs and attitudes pertaining to depression, rather than the situational presence of depression stigma in an organization. Additionally, although the depression stigma was manipulated successfully, the manipulation check did not assess the extent to which the manipulation changed the participant's personal beliefs about depression. Rather, the effectiveness of the stigma manipulation suggests that participants in the high depression stigma condition perceived that a high level of depression stigma was present in the hypothetical situation. However, the results from Study 3 suggest that the extent to which participants viewed a relational vs. instrumental as empathetic or appropriate was not altered by varying levels of perceived situational depression stigma; though the supplemental analysis suggests that their perceptions of a relational vs. an instrumental was indeed dependent on individual levels of depression stigma representing the participant's personal feelings and beliefs.

Findings from Study 3 still present partial evidence for the hypothesized model. Similar to findings from Study 1, supplemental analysis from Study 3 found that stigma only significantly moderates the empathy pathway, and *not* the appropriateness pathway, which could be partially attributed to the higher degree of similarity between social support request manipulations used in Study 1 and Study 3. Although Study 3 does not find any support for significant conditional indirect effects (with stigma as a manipulation), the direction of the marginal conditional indirect effects differed relative to those in Study 2. Specifically, while the

indirect effects observed in Study 2 were significant when stigma was low, the indirect effects observed in Study 3 were nearly significant when stigma was high. Taken as a whole, it's possible that social support requests are less likely to be acted on when the recipient has a high level of individual depression stigma, however, situational depression stigma (driven by workplace cultures) could lead a recipient to be more willing to help a depressed individual, potentially out of concern for their welfare in a more stigmatized context.

DISCUSSION

Recent management research has investigated the experiences of employees with mental health conditions (Follmer & Jones, 2018; Kelloway, Dimoff, & Gilbert, 2023; Rosado-Solomon, Koopmann, Lee, & Cronin, 2023), such as depression. However, this research is limited in the extent to which it explains the unique interpersonal dynamics that can occur in the surrounding context of an employee with a mental health condition. Across three studies, I demonstrate that in the context of responding to an employee with depression, requests for relational support (voluntarily providing help or support to a *person* at work) vs. instrumental support (voluntarily providing help or support for *organizational* initiatives) can impact the perceptions of the requester. Additionally, I find that depression stigma plays a moderating role in how these requests are interpreted, such that recipients with greater levels of stigma were more likely to evaluate requests that overrode a depressed employee's autonomy as empathetic. In the paragraphs below, I discuss how these findings contribute to management literature, as well as their limitations and relevant opportunities for future research.

Theoretical Contributions

First, this paper contributes to an understanding of the ways in which individuals respond to one another's mental health statuses and conditions, within a work context. To date, most

research has focused on relational experiences from the perspective of employees affected by mental health conditions (e.g., Follmer & Follmer, 2021), as opposed to investigating the subsequent experiences of nearby and/or surrounding employees, who may be personally impacted as a result of the employees affected by mental health conditions. For example, Kensbock, Alkærsig, and Lomberg (2022) suggest that depressed employees could meaningfully impact subsequent interactions across their colleagues, however the mechanisms by which this could occur remain both unclear and debated (Pierce & Rider, 2022). This research accordingly helps elucidate the ways in which a conversation about a depressed employee could potentially lead to more frequent conversations about mental health, and potentially more helpful interactions with a depressed employee—or it could fail to garner support and even prevent employees from feeling comfortable about having future conversations about mental health. As such, this paper can also be viewed under the perspective of allyship, where an advantaged individual (nondepressed employee) seeks to respond and potentially help a disadvantaged group member (depressed employee). Despite a substantial literature on allyship (De Souza & Schmader, 2025), little is known about allyship in the context of mental health, and the unique factors that could influence how allyship efforts are received. This paper specifically contributes to our understanding of how mental health-specific allyship could be received—or even misperceived in the workplace (e.g., Birnbaum et al., 2024).

Second, this paper contributes to theory on stigmatized identity disclosure, which consists of the sharing of information which may reveal a hidden trait or individual difference that may be stigmatized or discriminated against at work (Follmer et al., 2020). Although management scholars have developed literature that seeks to explain how hidden identities, such as sexual orientation, may be revealed in a workplace context (e.g., King, Mohr, Peddie, Jones, & Kendra,

2017; Lyons et al., 2020), much of this literature focuses on understanding disclosures that occur between the individual with the hidden identity and their colleagues. Additionally, theoretical frameworks that have been developed to understand disclosure in the workplace typically explore how and when individuals with hidden identities deliberately and intentionally disclose information about their identities directly to other people at work (Chaudoir & Fisher, 2010; Clair, Beatty, & MacLean, 2005; Jones & King, 2014). Management scholars have less of an understanding of how the disclosure of hidden identities can occur indirectly, such as through one's colleagues or network of peers. These indirect processes are likely to have important consequences for many employees beyond the individual with the hidden identity and the colleague they disclosed to (Hart et al., 2024). This research specifically shows how an employee's depression disclosure, when shared indirectly, can have important behavioral implications that impact initially uninvolved employees' behavioral intentions towards the depressed employee as well as their level of comfort in disclosing a mental health condition at work. These insights not only expand our understanding of the ways in which hidden identities are revealed in the workplace, but they also suggest that disclosures may have more far-reaching consequences than previously assumed.

Third, I contribute to literature on workplace gossip and the process of sharing secrets and/or coveted information among employees (for a review, see Sun et al., 2023). The sharing of a fellow individual's mental health status has been referred to as "revealing others' secrets" (Hart et al., 2024), and it can be considered to be a form of gossip because it consists of "a sender communicating to a receiver about a target who is absent or unaware of the content" (Dores Cruz, Nieper, Testori, Martinescu, & Beersma, 2021:14; Sun et al., 2023). Research on gossip has previously explored prosocial gossip, which may seek to protect the receiver or help the

receiver by giving them more information (Feinberg et al., 2012). Similarly, Steinel, Utz, & Koning (2010) has investigated prosocial motivations as a predictor of sharing private information. Less understood are the consequences of sharing gossip that seeks to elicit help from the receiver in efforts to assist or support the target. The context of employee mental health offers the opportunity to highlight this phenomenon—in which an individual might seek to support a fellow employee with a mental health condition (Bhatti & Roulet, 2023). This paper accordingly expands our understanding of how engaging in prosocial gossip seeking to benefit the target of the gossip could backfire, and lead to unfavorable perceptions of the gossip sender.

Practical Implications

This paper has important practical implications. First, for employees who seek to be helpful towards colleagues with mental health challenges, the studies in this paper suggest that these efforts are likely to be unsuccessful without adequate workplace norms and guidelines. A key finding across all three studies is that the more a recipient perceived a social support request to be appropriate, the more likely they were to be willing to help and cooperate with the requester. However, if the recipient perceived that a social support request was empathetic, but not necessarily appropriate, then perceptions alone were not sufficient for facilitating a greater willingness to help the depressed employee. In other words, it's important for employees to feel, in a conversation pertaining to mental health, that the conversation is approached in a proper manner that is suitable for the workplace. Therefore, organizations that recommend their employees to be supportive of one another's mental health, should first establish best practices for having conversations about mental health conditions in the workplace.

Second, this paper suggests that efforts to reduce depression stigma, such as through depression education and literacy (for a review, see Dalky, 2012), is also a critical step in the

process of building a workplace culture in which employees actively support one another's well-being. Study 2's results found conditional indirect effects, such that a relational request could lead to a recipient's willingness to help if the recipient (a) felt that the request was appropriate *and* (b) reported lower levels of depression stigma. Study 2 also suggested that lower levels of recipient stigma may be critical for the recipient to consider disclosing their own mental health condition in the workplace. This research therefore suggests that if employees desire to be in workplaces in which they can receive coworker support in the context of a mental health challenge, or be an ally for others, then it is imperative for employees to seek out workplaces in which their coworkers have lower levels of stigma. In order for this to be achieved, it may be critical for leaders themselves to reduce stigmatized beliefs; online interventions which aim to reduce leaders' depression-related stigma can have meaningful behavioral implications even six months later (e.g., Shann et al., 2019). Additionally, leaders should be wary of the stigma-driven inclination to more easily tolerate overriding an employee's autonomy while they are experiencing a mental health condition, as autonomy is a critical need for improving overall mental health (Kelloway et al., 2023).

Limitations and Future Directions

This paper also has several limitations. Methodologically, this paper relied on a "experimental vignette methodology," which is appropriate for addressing specific hypothetical scenarios, such as those involving social support behaviors or citizenship behaviors (Aguinis & Bradley, 2014). Hypothetical scenarios offer less realism and generalizability, and these limitations pertaining to external validity may be best addressed by further research using other research designs (Aguinis & Bradley, 2014). For example, although a critical incident study may yield limited results for my (highly specific) research question in this paper, future research that

focuses more broadly on the impact of general workplace mental health-related conversations may benefit from the use of critical incident studies to enhance external validity (e.g., Bae, 2022). Additionally, greater qualitative research (e.g., Rosado-Solomon, Thatcher, & Strizver, 2025) to better understand the phenomenon, may be appropriate for future research. For example, it may be helpful to interview both employees who have disclosed depression in the workplace, as well as the coworkers of depressed employees. Doing so could expand our understanding of indirect disclosures and/or coworker interactions in response to mental health topics; it may also offer important insights into condition-specific and situation-specific nuances that may not be feasible to simultaneously test through an experimental vignette. Additionally, alternative methods could offer greater insight into the topic of conversational appropriateness, which, as a construct, requires further development in this paper and in management literature.

Insights from this research, while relevant to coworker conversations about mental health, may be limited to coworkers who do not differ in terms of seniority. While this research did not manipulate seniority or power distance across coworkers, research on gossip (Sun et al., 2023) finds that situational factors, such as power distance or social connectedness, could likely influence perceptions of the gossiper. Similarly, research on the disclosure of stigmatized identities in the workplace suggests that seniority and social standing could also impact how willing a coworker is to help with a social support request (Follmer et al., 2020). Additionally, it's likely that a variety of different demographic characteristics could play critical roles in how social support requests are evaluated (Sun et al., 2023). Further research is accordingly needed to expand our understanding of how conversations about mental health—particularly conversations about another employee's mental health condition—could differentially impact, and be impacted by, different types of interpersonal dynamics in the workplace.

Because this paper focused on depression stigma, its insights may also be limited to workplace conversations pertaining to depression, while ignoring other important mental health conditions (e.g., bipolar disorder, social anxiety disorder) that could be associated with their own unique stigmas (Anderson, Jeon, Blenner, Wiener, & Hope, 2015; Østerud, 2023). While stigmas pertaining to different mental health conditions could have similar behavioral implications, such as avoidance of the individual with the condition (Anderson et al., 2015), they may be associated with different beliefs, which could have important and unique long-term consequences. For example, ADHD stigma may cause coworkers or even leaders to believe that ADHD is less valid than other conditions or disorders (Masuch, Bea, Alm, Deibler, & Sobanski, 2019), leading to reduced support for the employee. Importantly, research on mental health in the field of management requires a greater understanding of condition-specific research, in order to more adequately understand the well-being needs of all employees (Rosado-Solomon, Koopmann, Lee, & Cronin, 2023).

CONCLUSION

Conversations about mental health in the workplace are becoming increasingly normal, yet the ways in which these conversations happen—and the mechanisms by which a single employee's mental health condition impacts their coworkers—is not well understood (Pierce & Rider, 2022). In this paper, I report on the findings from three scenario experiments in which the coworker of a depressed employee makes a request (in the form of an interpersonal or organizational social support behavior) of another coworker (the recipient). Results from these studies suggest that conversations among coworkers about a fellow employee's mental health are nuanced; although a recipient may view the requester as empathetic, their cooperation with the request is likely to be conditional on viewing the request as appropriate. This paper also finds

that recipients with higher levels of depression stigma may evaluate different social support behavior requests (relational vs. instrumental) in a unique manner, such that they may respond more favorably to requests that limit a depressed employee's autonomy over how they are supported. Taken together, this research highlights the challenges and potential pitfalls of discussing an employee's mental health in the workplace.

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TABLES

Table 1

Chapter 1, Study 1a Descriptive Statistics and Correlations

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Remote Work Intensity	1.45	0.74					
2. Depression Symptoms	1.41	1.59	-.04				
3. Self-Care Activity	6.30	2.17	.00	-.13**			
4. Job Satisfaction	3.77	1.18	.03	-.24**	.10**		
5. Social Support Activity	3.61	1.11	-.04	-.21**	.19**	.15**	
6. Loneliness	4.99	1.85	-.04	.58**	-.13**	-.27**	-.27**

Note. N = 2,493. *indicates $p < .05$. **indicates $p < .01$.

Table 2*Chapter 1, Study 1a Path Analysis Results*

	Self-Care Activity <i>b (SE)</i>	Social Support Activity <i>b (SE)</i>	Job Satisfaction <i>b (SE)</i>	Loneliness <i>b (SE)</i>
Remote Work Intensity	.11 (.08)	-.15** (.04)	.04 (.03)	-.11* (.05)
Depression Symptoms	-.06 (.06)	-.23** (.03)	<i>Indirect effect via self-care: -.00 (.00)</i>	<i>Indirect effect via social support: .03* (.01)</i>
Remote Work Intensity X Depression Symptoms	-0.09* (.04)	.06* (.02)	<i>Indirect effect via self-care (higher depression symptoms): .01 (.00)</i>	<i>Indirect effect via social support (higher depression symptoms): -.01 (.00)</i>
			<i>Indirect effect via self-care (lower depression symptoms): -.01 (.00)</i>	<i>Indirect effect via social support (lower depression symptoms): .06** (.02)</i>
Self-Care Activity			.04* (.01)	
Social Support Activity				-.40** (.03)

Note. $N = 2,493$. Path coefficients are reported. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3*Chapter 1, Study 1b Descriptive Statistics and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Remote Work Intensity	1.35	0.67					
2. Depression Symptoms	1.63	1.67	.03				
3. Self-Care Activity	6.26	2.18	-.05*	-.10**			
4. Job Satisfaction	3.69	1.17	.03	-.23**	.12**		
5. Social Support Activity	3.62	1.12	-.01	-.23**	.20**	.17**	
6. Loneliness	1.75	0.62	-.02	.55**	-.12**	-.24**	-.26**

Note. N = 2,580. *indicates $p < .05$. **indicates $p < .01$.

Table 4*Chapter 1, Study 1b Path Analysis Results*

	Self-Care Activity <i>b (SE)</i>	Social Support Activity <i>b (SE)</i>	Job Satisfaction <i>b (SE)</i>	Loneliness <i>b (SE)</i>
Remote Work Intensity	-0.09 (.10)	-.09* (.02)	.06 (.03)	-.02 (.02)
Depression Symptoms	-.08 (.06)	-.23** (.03)	<i>Indirect effect via self-care: -.01* (.00)</i>	<i>Indirect effect via social support: .00 (.00)</i>
Remote Work Intensity X Depression Symptoms	-.04 (.04)	.05* (.02)	<i>Indirect effect via self-care (higher depression symptoms): -.01* (.01)</i>	<i>Indirect effect via social support (higher depression symptoms): -.01† (.01)</i>
			<i>Indirect effect via self-care (lower depression symptoms): -.01 (.00)</i>	<i>Indirect effect via social support (lower depression symptoms): .01* (.02)</i>
Self-Care Activity			.06* (.01)	
Social Support Activity				-.13** (.01)

Note. $N = 2,580$. Path coefficients are reported. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5*Chapter 1, Study 2 Correlations and Descriptive Statistics*

Variable	<i>M</i>	<i>SD</i>	1	2	3
1. Remote Work Intensity (%)	24.03	37.29			
2. Depression Symptoms	2.88	1.35	-.07*		
3. Self-Care Activity (days)	28.94	4.95	.01	-.47**	
4. Social Support Activity	3.97	1.53	.08*	-.06	-.06

Note. N = 1290 (except any correlations involving social activity, where N=889).

* indicates $p < .05$. ** indicates $p < .01$.

Table 6

Chapter 1, Study 2 Regression of Self-Care Activity and Social Support Activity

	Self-Care Activity						Social Support Activity					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Age					.01	(.01)					-.03***	(.01)
Female					-.08	(.27)					0.09	(.11)
White					-0.93**	(.30)					0.25*	(.12)
Job Tenure					.00	(.02)					-.00	(.01)
Depression Condition					-1.31***	(.33)					-.16	(.13)
Married					.03	(.32)					-.14	(.12)
Number of Children					.09	(.10)					-.14***	(.04)
Any Child at Home					.35	(1.64)					-.10	(.69)
Child Under Age 6					-.29	(1.56)					.06	(.66)
Child Age 6 to 17					-.14	(1.49)					.06	(.64)
Lives with Partner					.50	(.35)					-.19	(.14)
Work Methods					-.21	(.18)					-.08	(.07)
Autonomy												
Work Time Pressure					-0.40*	(.18)					-.04	(.07)
Flextime					.31*	(.15)					.05	(.06)
Decision Making					.05	(.17)					.14*	(.07)
Participation												
Supervisor Status					.51	(.29)					.08	(.11)
Interdependence					-.01	(.29)					-.02	(.12)
Size of Employer					-0.03	(.06)					-.01	(.03)
Remote is Required					-0.11	(.45)					.12	(.19)
Remote Work Intensity	-.00	(.00)	-.00	(.01)	.03	(.01)	.00*	(.00)	-.00	(.00)	-.00	(.00)
Depression Symptoms	-1.75***	(.09)	-1.74***	(.12)	-1.50***	(.12)	-.06	(.12)	-.08	(.04)	-.13**	(.05)

Remote Work		-.00	(.00)	-.00	(.00)		.00	(.00)	.00	(.00)
Intensity× Depression										
Symptoms										
<i>R</i> ² (ΔR^2)	.22	.22 (0)		.26 (.04)	.01		.01 (0)		.13 (.12)	

Note. *N*=1290 for Self-Care Activity outcome, and *N* = 889 for Social-Support Activity outcome. Coefficients are unstandardized. Gender (1=Female, 0=Male) and race (1=White, 0=Other Race) are dummy coded with male and other races as reference categories, respectively. **p* < .05, ***p* < .01, ****p* < .001.

Table 7

Chapter 1, Study 3 Descriptive Statistics and Correlations.

Variable	<i>M</i>	<i>SD</i>	1	2
1. Remote Work Intensity (%) T1	35.15	40.76		
2. Depression T1	6.66	6.35	-.03	
3. Self-Care Activity T3	3.25	0.88	.06	-.51**

Note. N = 308. *indicates $p < .05$. **indicates $p < .01$.

Table 8

Chapter 1, Study 3 Regression of Self-Care Activity on Remote Work Intensity and Depression Symptoms

Predictor	Model 1		Model 2		Model 3	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
(Intercept)	3.68***	.07	3.61***	.08	3.70***	.32
Controls						
Others At Home					-0.03	.05
During Remote Work						
Caregiving					-0.03*	.01
Seeking Treatment for					0.00	.14
Depression						
Remote Work					-0.07	.20
Accommodation						
Prefers Remote Work					0.00	.10
Current Depression					-0.04	.14
Diagnosis						
Current Other					0.10	.15
Diagnosis						
Age					0.00	.00
Female					0.03	.09
White					0.09	.21
Black					-0.02	.25
Hispanic					0.02	.19
Asian					0.10	.24
American Indian					0.49	.56
Other Race					-0.04	.43
Predictors						
Remote Work	0.00	.00	0.00*	.00	0.00†	.00
Intensity						
Depression Symptoms	-0.07***	.01	-0.06***	.01	-0.06***	.01
Remote Work			-0.00†	.00	-0.00	.00
Intensity × Depression						
Symptoms						
(R ²) ΔR ²	.25		.26 (.01)		.25 (.01)	

Note. N=308. Coefficients are unstandardized. Race is dummy coded, whereas gender

(1=female, 0= male) is coded such that male as the reference category). † $p < .10$. * $p < .05$. ** p

$< .01$. *** $p < .001$.

Table 9*Chapter 2, Study 1 Descriptive Statistics and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Relational SSR	0.51	0.50					
2. Depression Stigma	4.29	1.15	-.06				
3. Empathy	4.74	1.33	.47**	.11			
4. Appropriateness	4.43	1.60	.46**	.10	.54**		
5. Willingness to Help	4.69	1.69	.52**	.08	.52**	.80**	
6. Willingness to Disclose	3.86	1.75	.19	-.02	.31**	.32**	.24*

Note. *N* = 88. * indicates $p < .05$. ** indicates $p < .01$. Social Support Request (SSR) is coded (1=Relational, 0=Instrumental) with Instrumental Social Support Request as the reference category.

Table 10*Chapter 2, Study 1 Regression of Empathy and Appropriateness Perceptions on Social Support Requests and Depression Stigma*

Predictor	Perceptions of Empathy						Perceptions of Appropriateness						
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	
(Intercept)		3.43***	.51	2.50***	.65	3.02**	1.07	2.93***	.63	2.87***	.81	2.90*	1.34
Prior Depression						-0.25	.29					-0.34	.36
Diagnosis													
Friends and Family						-0.40	.33					-0.36	.42
with Depression													
Colleagues with						0.36	.27					0.75*	.34
Depression													
Female						-0.11	.17					-0.01	.21
White						0.05	.31					0.30	.39
Age						0.01	.01					-0.01	.01
Relational SSR ×	1.26***	.25	3.34***	.96	3.36**	1.00	1.47***	.31	1.62	1.21	1.72	1.25	
Depression Stigma	0.16	.11	0.37*	.14	0.32*	.15	0.18	.13	0.19	.18	0.20	.18	
Relational SSR ×			-0.49*	.22	-0.48*	.22			-0.03	.27	-0.05	.28	
Depression Stigma													
(R ²) ΔR ²		.22		.26 (.04)		.25 (.01)		.20		.20 (.00)		.19 (.01)	

Note. N=86. Coefficients are unstandardized. Social Support Request (SSR) is coded (1=Relational, 0=Instrumental) with

Instrumental Social Support Request as the reference category. Race is coded (1=White, 0=Other Race) where 'Other race' is the

reference category. Gender was coded (1=Female, 0=Male) with 'Male as the reference category). $\dagger p < .10$. $*p < .05$. $**p < .01$. $***p < .001$.

Table 11

Chapter 2, Study 2 Descriptive Statistics and Correlations

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Relational SSR	0.50	0.50					
2. Depression Stigma	3.79	1.36	-.01				
3. Empathy	5.12	1.52	.44**	.09			
4. Appropriateness	4.88	1.64	.31**	.06	.77**		
5. Willingness to Help	5.14	1.59	.31**	.00	.63**	.74**	
6. Willingness to Disclose	3.75	1.76	.24**	.09	.51**	.59**	.54**

Note. $N = 249$. Social Support Request (SSR) is coded (1=Relational, 0=Instrumental) with Instrumental Social Support Request as the reference category. *indicates $p < .05$. **indicates $p < .01$.

Table 12

Chapter 2, Study 2 Path Analysis Results

	Empathy <i>b</i> (SE)	Appropriateness <i>b</i> (SE)	Willingness to Help <i>b</i> (SE)	Willingness to Disclose <i>b</i> (SE)
Relational SSR	2.98** (.50)	2.60** (.61)	.16 (.27)	.12 (.56)
			<i>Indirect effect via empathy:</i> .20† (.11)	<i>Indirect effect via empathy:</i> .18 (.13)
			<i>Indirect effect via appropriateness:</i> .63** (.16)	<i>Indirect effect via appropriateness:</i> .56** (.15)
Depression Stigma	.29* (.11)	.24* (.11)		
Relational SSR X Depression Stigma	-.43** (.12)	-.41** (.15)	<i>Indirect effect via empathy (higher depression stigma):</i> .11 (.07)	<i>Indirect effect via empathy (higher depression stigma):</i> .10 (.08)
			<i>Indirect effect via empathy (lower depression stigma):</i> .28† (.16)	<i>Indirect effect via empathy (lower depression stigma):</i> .25 (.19)
			<i>Indirect effect via appropriateness (higher depression stigma):</i> .29 (.18)	<i>Indirect effect via appropriateness (higher depression stigma):</i> .26 (.16)
			<i>Indirect effect via appropriateness (lower depression stigma):</i> .97** (.24)	<i>Indirect effect via appropriateness (lower depression stigma):</i> .86** (.22)
Empathy			.15 (.08)	.13 (.10)
Appropriateness			.61** (.08)	.54** (.00)

Note. $N = 249$. Path coefficients are reported. Social Support Request (SSR) is coded (1=Relational, 0=Instrumental) with

Instrumental Social Support as the reference category. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 13*Chapter 2, Study 3 Descriptive Statistics and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Relational SSR	0.51	0.50					
2. Depression Stigma	0.49	0.50	.01				
3. Empathy	5.82	1.06	.29**	.07			
4. Appropriateness	5.83	1.07	.13*	.05	.64**		
5. Willingness to Help	6.02	1.21	.15*	.04	.46**	.74**	
6. Willingness to Disclose	4.19	2.03	.07	-.11	.35**	.33**	.32**

Note. $N = 253$. Social Support Request (SSR) is coded (1=Relational, 0=Instrumental) with Instrumental Social Support as the reference category. Depression Stigma is coded (1=Depression stigma manipulation, 0=Low Depression Stigma manipulation), where the low depression stigma manipulation was the reference category. *indicates $p < .05$. **indicates $p < .01$.

Table 14

Chapter 2, Study 3 Path Analysis Results

	Empathy <i>b</i> (SE)	Appropriateness <i>b</i> (SE)	Willingness to Help <i>b</i> (SE)	Willingness to Disclose <i>b</i> (SE)
Relational SSR	.51* (.20)	.11 (.21)	.16 (.11)	-.09 (.25)
			<i>Indirect effect via empathy:</i> -.04 (.05)	<i>Indirect effect via empathy:</i> .27* (.00)
			<i>Indirect effect via appropriateness:</i> .23† (.11)	<i>Indirect effect via appropriateness:</i> .09 (.05)
Depression Stigma	.03 (.23)	-.08 (.18)		
Relational SSR X Depression Stigma	.18 (.27)	.33 (.28)	<i>Indirect effect via empathy (higher depression stigma):</i> -.04 (.05)	<i>Indirect effect via empathy (higher depression stigma):</i> .31* (.14)
			<i>Indirect effect via empathy (lower depression stigma):</i> -.03 (.04)	<i>Indirect effect via empathy (lower depression stigma):</i> .23† (.12)
			<i>Indirect effect via appropriateness (higher depression stigma):</i> .37* (.15)	<i>Indirect effect via appropriateness (higher depression stigma):</i> .14† (.08)
			<i>Indirect effect via appropriateness (lower depression stigma):</i> .09 (.18)	<i>Indirect effect via appropriateness (lower depression stigma):</i> .03 (.07)
Empathy			-.06 (.08)	.45** (.14)
Appropriateness			.84** (.09)	.31* (.14)

Note. *N* = 253. Path coefficients are reported. Social Support Request (SSR) is coded (1=Relational, 0=Instrumental) with

Instrumental Social Support Request as the reference category. Depression Stigma is coded (1=Depression stigma manipulation,

0=Low Depression Stigma manipulation), where the low depression stigma manipulation was the reference category. †p < .10, * p < .05, ** p < .01, *** p < .001

Table 15

Chapter 2, Summary of Hypotheses Across Studies

	Study 1	Study 2	Study 3
Hypothesis 1: SSR x stigma interaction predicting empathy.	Supported	Supported	Not Supported
Hypothesis 2: SSR x stigma interaction predicting appropriateness	Not supported	Supported	Not Supported
Hypothesis 3a: Conditional indirect effect of SSR x stigma on willingness to help, via empathy	-	Not supported	Not Supported
Hypothesis 3b: Conditional indirect effect of SSR x stigma on willingness to help, via appropriateness	-	Supported	Marginal
Hypothesis 4a: Conditional indirect effect of SSR x stigma on willingness to disclose, via empathy	-	Not Supported	Not Supported
Hypothesis 4b: Conditional indirect effect of SSR x stigma on willingness to disclose, via appropriateness	-	Supported	Marginal

FIGURES

Figure 1

Chapter 1 Conceptual Model

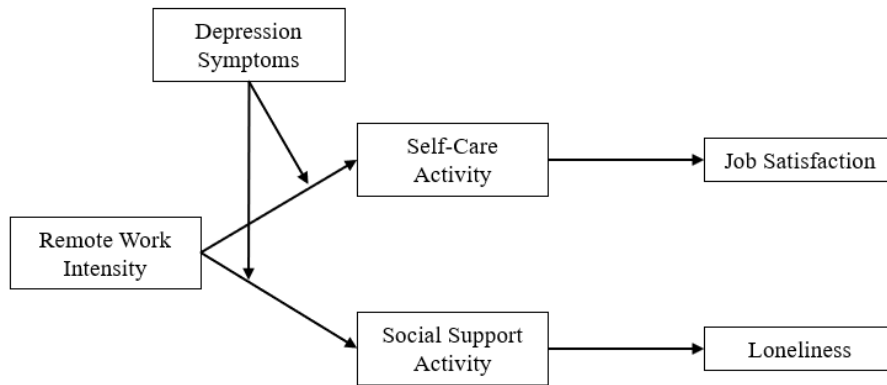


Figure 2

Chapter 1, Study 1a Interaction Predicting Self-Care Activity

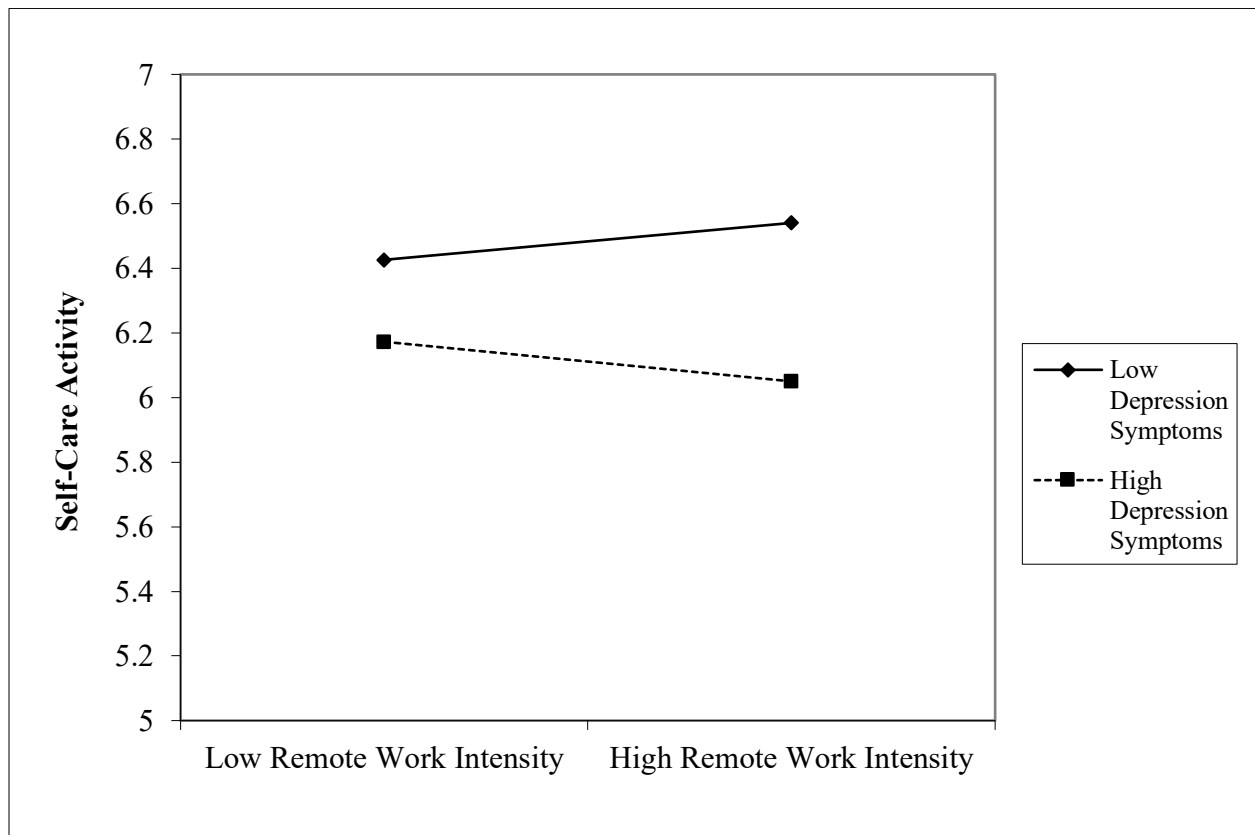


Figure 3

Chapter 1, Study 1a Interaction Predicting Social Support Activity

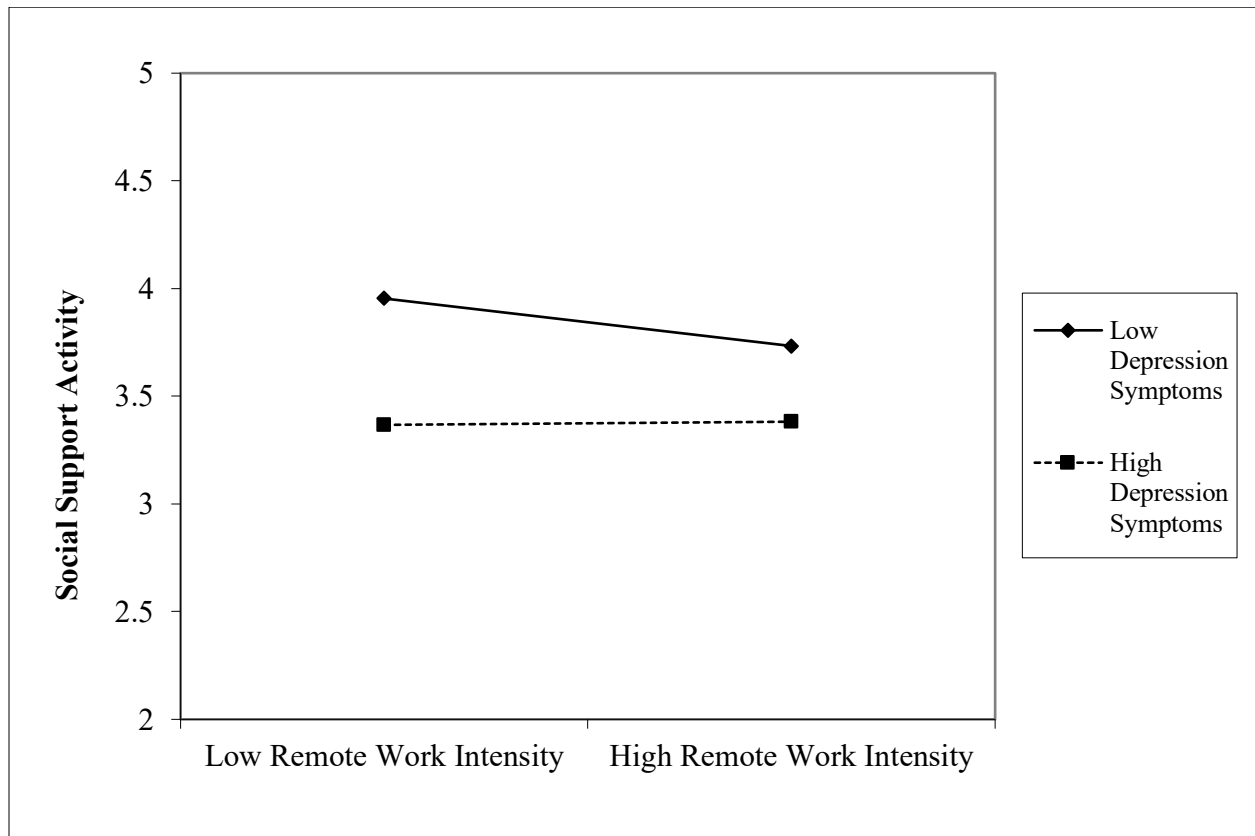


Figure 4

Chapter 2 Conceptual Model

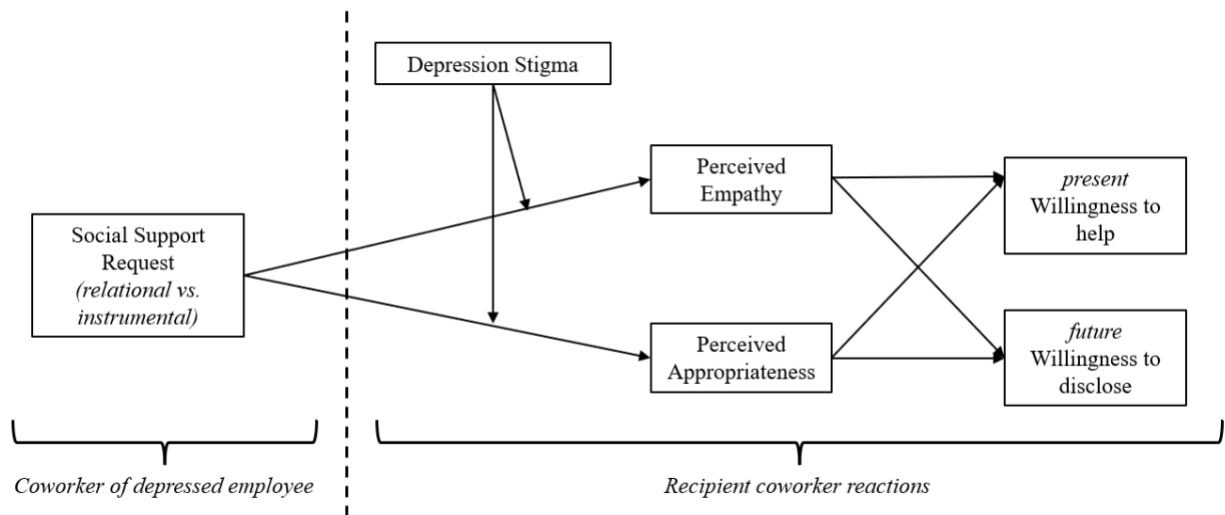


Figure 5

Chapter 2, Study 1 Interaction Predicting Perceptions of Empathy

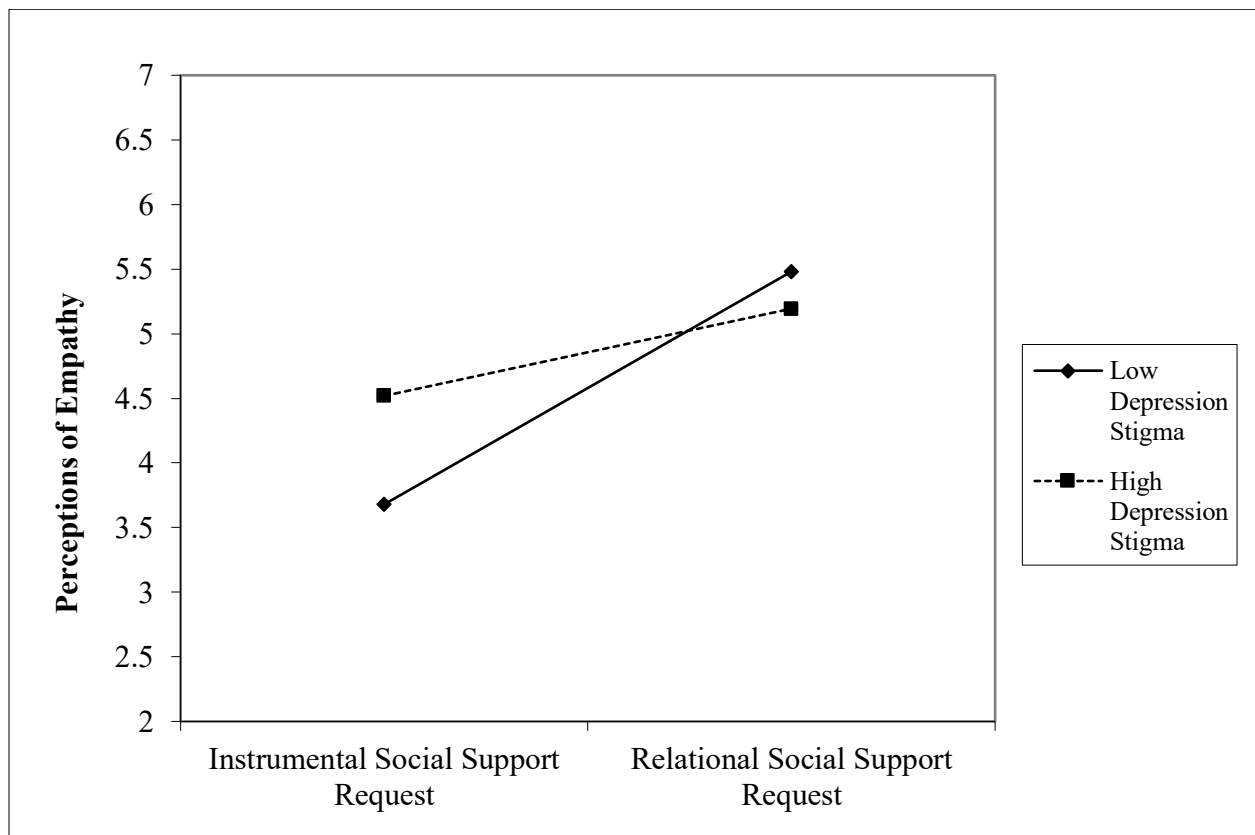
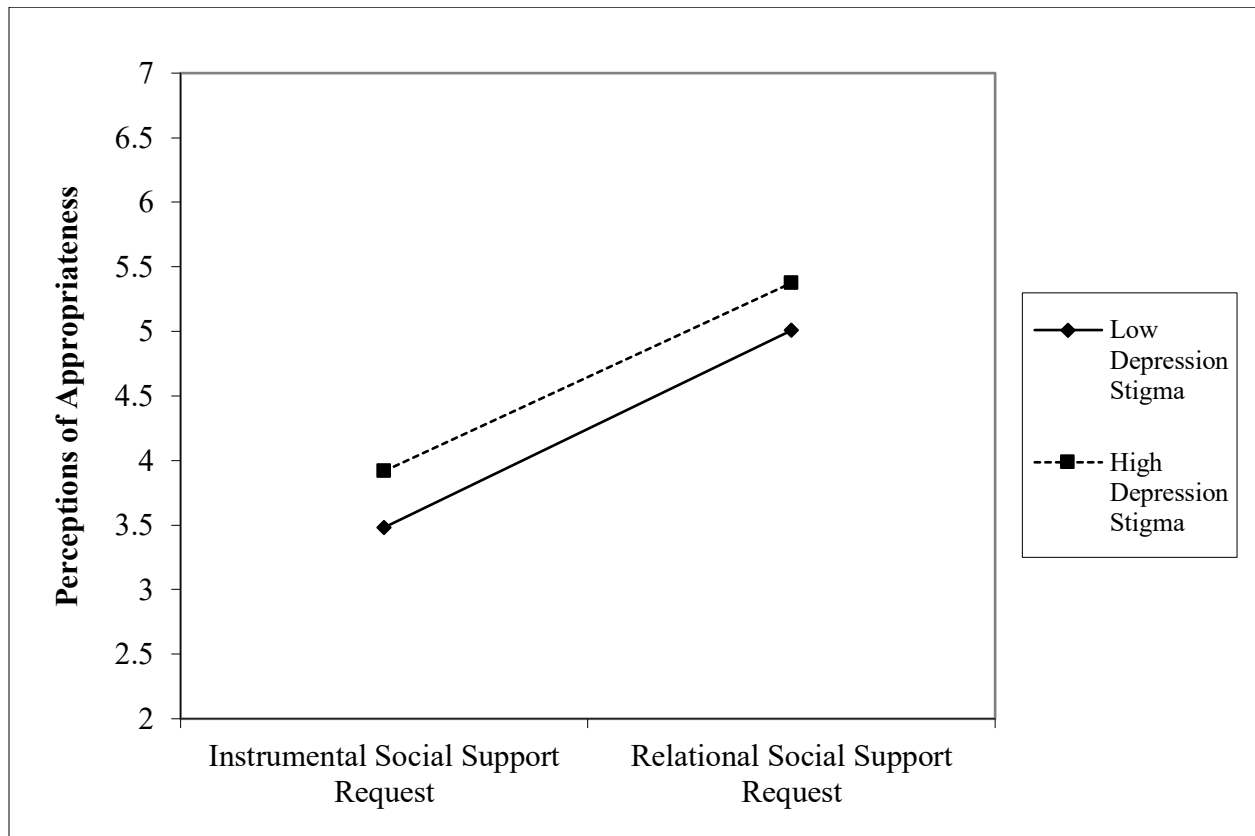


Figure 6

Chapter 2, Study 1 Interaction Predicting Perceptions of Appropriateness



APPENDIX A

Scenarios used in Chapter 2, Study 1



Please imagine the following scenario...

Ever since graduating from college, you have been working full-time at a local, mid-sized management consultancy. You have been employed here for over five years, and you are very familiar with your company.

One day, when you are having lunch alone, a coworker comes over to quietly chat with you.

This coworker's name is Alex. While you are chatting together, Alex starts talking about a mutual coworker, Jesse.

Alex tells you this:

“The other day, Jesse told me they're going through a pretty serious bout of depression, and they wanted to be open about it...

Relational SSR Manipulation [...I was thinking we should each reach out to Jesse and spend some time with them. It would be good to show them some kindness and be accommodating of their personal situation and challenges outside of work.”]

Instrumental SSR Manipulation [...I was thinking we should each take on extra meetings and work to keep our clients from dealing with potential issues. It would be good to keep up the day-to-day functioning of the department and protect its reputation.”]

Scenarios used in Chapter 2, Study 2



Please imagine the following scenario...

For the last few years, you have been working for a financial services firm. Although you mostly work alone, you have colleagues in nearby offices who occasionally drop by for a chat. Two of these colleagues are Casey and Ali.

You are working alone in your office when Casey comes in for a chat.

During your chat, Casey tells you this:

“The other day, Ali told me they're going through a pretty serious bout of depression, and they wanted to be open about it...

Relational SSR Manipulation [...I was thinking we should reach out to Ali and offer to substitute for them at the college business club they advise and volunteer at on Friday afternoons. That way we can be accommodating and helpful given Ali's personal situation and all their responsibilities outside of work."]

Instrumental SSR Manipulation [...I was thinking we should reach out to our director and offer to substitute for Ali at our company's booth at the networking event on Friday afternoons. That way we can make sure the booth functions smoothly so there are no problems with it or the company's reputation."]

Scenarios used in Chapter 2, Study 3



Please imagine the following scenario...

For the last year, you have been working on a sales team for a small tech company. You, and a couple teammates (Riley and Adrien) are all responsible for working with high profile clients.

You once asked your boss what sorts of people succeed here, and she emphasized the importance of being warm, friendly, positive, and upbeat.

She gave the example of someone who had to be fired on the first week. She said...

High Depression Stigma Manipulation ["Between you and me, I think he had depression or something. If you're having to take an antidepressant, then that's just not going to work here."]

Low Depression Stigma Manipulation ["Between you and me, I think it was their first serious sales job or something. If you haven't worked in this field before, then that's just not going to work here."]

On Sunday evening, you receive the following texts from your coworker Riley.

Relational, Instrumental Social Support Request Manipulations:

R

Hey! So Adrien just told me that they're going through a pretty serious bout of depression, and they wanted to be open about it...

(541) 913-1517 • 5:07 PM

R

I was thinking we should each reach out to Adrien and spend some time with them. It would be good to show them some kindness and be accommodating of their personal situation and challenges outside of work.

(541) 913-1517 • 5:11 PM

R

Hey! So Adrien just told me that they're going through a pretty serious bout of depression, and they wanted to be open about it...

(541) 913-1517 • 5:00 PM

R

I was thinking we should each take on extra meetings and work to keep our clients from dealing with potential issues. It would be good to keep up the day-to-day functioning of our team and protect the company's reputation.

(541) 913-1517 • 5:04 PM

Type a message

Type a message

APPENDIX B

Measures for Chapter 2, Studies 1-3

Relational Social Support

Original items for OCB-I (Lee & Allen, 2002):

1. Help others who have been absent.
2. Willingly give your time to help others who have work-related problems.
3. Adjust your work schedule to accommodate other employees' requests for time off.
4. Go out of the way to make newer employees feel welcome in the work group.
5. Show genuine concern and courtesy toward coworkers, even under the most trying business or personal situations.
6. Give up time to help others who have work or nonwork problems.
7. Assist others with their duties.
8. Share personal property with others to help their work.

Select, adjusted items used for Chapter 2 manipulation checks:

1. Go out of the way to make coworkers feel comfortable in the work unit.
2. Show genuine concern and courtesy toward coworkers, even under the most trying personal situations.
3. Willingly give your time to help coworkers who have nonwork problems.
4. Adjust your work schedule to accommodate other coworkers' requests.

Instrumental Social Support

Original items for OCB-O (Lee & Allen, 2002):

1. Attend functions that are not required but that help the organizational image.
2. Keep up with developments in the organization.
3. Defend the organization when other employees criticize it.
4. Show pride when representing the organization in public.
5. Offer ideas to improve the functioning of the organization.
6. Express loyalty toward the organization.
7. Take action to protect the organization from potential problems.
8. Demonstrate concern about the image of the organization.

Select, adjusted items used for Chapter 2 manipulation checks:

1. Take action to protect the work unit from potential problems.
2. Attend functions that are not required but that help the work unit image.
3. Demonstrate concern about the image of the work unit.
4. Keep up with developments in the work unit.

Managerial Depression Stigma (Martin, 2010)

Original items for Affective Stigma

1. I feel comfortable dealing with depressed employees (R).

2. Employees with depression scare me.
3. Working with depressed employees is stressful.
4. I feel sorry for employees who are depressed.
5. It makes me feel awkward working alongside someone who is depressed.
6. Depressed employees can drag you down emotionally.

Select items for Affective Stigma used in Chapter 2

1. Working with depressed employees is stressful.
2. I feel sorry for employees who are depressed.
3. It makes me feel awkward working alongside someone who is depressed.
4. Depressed employees can drag you down emotionally.

Original items for Cognitive Stigma

1. If an employee is suffering from depression, it is his/her own fault.
2. Employees needing antidepressants should not be working.
3. Employees with depression could snap out of it if they wanted to.
4. If an employee is suffering from depression, it is a sign of personal weakness.
5. Employees with depression are a liability to an organization.*

*Item not included in the final scale used by Martin (2010), however I retained it due to applicability to scenarios in Chapter 2 after verifying internal validity of scale.

Select items for Cognitive Stigma used in Chapter 2

1. Employees needing antidepressants should not be working.
2. If an employee is suffering from a mental health condition, it is his/her own fault.
3. Employees with depression could snap out of it if they wanted to.
4. Employees with depression are a liability to an organization.

Perceived Empathy (Wahlers et al., 2024)

Original items for Perceived Empathetic Response:

Participants responded to two items related to the concern dimension of empathy:

1. How much concern they think Janet feels toward the man (1 = She feels no concern at all; 7 = She feels a great deal of concern)
2. How much they think Janet sympathizes with the man (1 = She does not sympathize at all; 7 = She sympathizes a great deal).

Participants responded to two items related to the understanding dimension of empathy.

1. How much they think Janet understands how the man is feeling (1 = She does not understand at all; 7 = She understands a great deal).
2. How much they think Janet resonates with the man's situation (1 = She does not resonate at all; 7 = She resonates a great deal).

Adapted items for Perceived Empathy used in Chapter 2, Study 1:

1. Alex understands how Jesse is feeling.
2. Alex resonates with Jesse's situation.
3. Alex sympathizes with Jesse.

4. Alex is concerned about Jesse.

Perceived Appropriateness (Canary & Spitzberg, 1987)

Original items for General Appropriateness of Conflict Strategies:

1. I was comfortable throughout the conversation with his or her remarks.
2. Her or his communication was very proper.
3. Some of the things he or she said were awkward. (R)
4. Her or his conversation was very suitable to the situation.
5. Everything he or she said was appropriate.
6. He or she was a smooth conversationalist.
7. He or she said several things that seemed out of place in the conversation. (R)
8. The way he or she said some of her or his remarks was unsuitable. (R)

Select, adapted items for Perceived Conversational Appropriateness used in Chapter 2, Study 1:

1. Alex's request is very suitable to the situation.
2. Everything Alex said is appropriate.
3. Alex's communication is very proper.
4. I'm comfortable with Alex's remarks.

Willingness to Help (Nadler & Chernyak-Hai, 2014)

Original item for "Willingness to Help":

1. "Participants indicated their readiness to help the student with their schoolwork by rating a one item-scale: 'If you could, to what extent would you be willing to help the student?'"

Adapted item for Willingness to Help used in Chapter 2, Study 1:

1. I would be willing to do what Alex requested.

Adapted item for Willingness to Disclose used in Chapter 2, Study 1:

1. I would be willing to disclose a personal mental health challenge with my coworkers.