Social Sharing of Emotion and Wellbeing at Work: Current Practices and the Emerging Role of Conversational Agents

by

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Abstract

Employee well-being has become an urgent organizational priority in response to rising rates of occupational stress, burnout, and mental health challenges across industries. Traditional well-being initiatives—such as employee assistance programs and wellness interventions—are often hindered by low engagement, social stigma, and limited relevance to workplace-specific stressors. Digital strategies, particularly conversational agents (CAs), present a promising avenue for scalable and personalized support. While CAs have demonstrated potential in healthcare contexts, their role in organizational well-being remains underexplored.

This dissertation examines the potential of CAs as tools to support workplace well-being by focusing on the social sharing of emotion among emergency department (ED) clinicians. Using semi-structured interviews, the study investigated how clinicians share emotions at work, what motivates or hinders such practices, and how they perceive institutional support. Findings reveal that clinicians engage in both informal and formal social sharing, with motivations grounded in relational trust, professional identity, and coping needs, but also encounter barriers such as hierarchical constraints, cultural norms, and time pressures. Building on these insights, the study explored opportunities and concerns surrounding the use of CAs for workplace social sharing of emotion and emotional support. While participants recognized potential benefits of implementing the technology such as accessibility, anonymity, and contextual flexibility, concerns were raised regarding trust, privacy, and organizational fit.

The dissertation contributes to academic literature and organizational practice by emphasizing the importance of contextual and cultural adaptability, along with trust-building strategies, in designing CAs that fit organizational settings. Ultimately, the study enhances understanding of how social sharing of emotion occurs and how CAs can support efforts to promote wellbeing, providing implications for both CA design and broader organizational support systems.

Chapter 1 Introduction

1.1 Problems and Motivation

As occupational stress, burnout, and anxiety continue to rise across various industries (American Psychological Association, 2024), prioritizing employees' psychological health and well-being has become increasingly important for organizations. Numerous studies have shown that employee mental health and psychological wellbeing can significantly impact their productivity and organizational outcomes, such as absenteeism and turnover (e.g., Kelloway et al., 2023). Workplace wellbeing of individuals has also been identified as an integral part of individuals' wellbeing (Weziak-Bialowolska et al., 2020). Organizations have attempted to improve employee mental health and wellbeing through programs like counseling services, mental health training, and flexible work arrangements (Kirk & Brown, 2003; Richmond et al., 2017). However, these efforts often produce mixed results and need extra support to address challenges such as social stigma, perceived lack of effectiveness, and low engagement rates (Csiernik, 2011; Knight et al., 2019; Long & Cooke, 2023).

To mitigate these issues and better promote wellbeing at the workplace, this dissertation seeks to explore the potential of conversational agents (CAs). Existing studies indicated that the use of AI-based tools, including conversational AI, is promising as a means of tackling individuals' wellbeing and mental health for diverse populations (e.g., Aggarwal et al., 2023; Limpanopparat et al., 2024). For example, prior research in mental healthcare and wellbeing domains examined the effectiveness of CAs for active listening, guiding cognitive reframing, assessing mental health status, and providing emotional support (e.g., Brandtzæg et al., 2021; Meng et al., 2023; Zhou et al., 2019). Also, CAs agents, operating through natural language interactions and offering advantages like 24/7 availability, anonymity, personalization, and scalability in comparison to traditional interventions for mental wellbeing (Abd-Alrazaq et al., 2020; Vaidyam et al., 2019), facilitate engagement. Despite the positive outcomes of implementing CAs for wellbeing and mental health, it is underexplored how the capabilities and affordability of CAs can be translated into the workplace settings for occupational wellbeing.

Since work environments have distinct relational dynamics, structures, and cultures compared to general and personal contexts, the deployment of CAs should be approached from multiple dimensions.

To close this gap, my dissertation aims to understand how employees engage in the social sharing of emotion—discussing events, thoughts, and feelings with others at work. Previous research indicates that individuals with negative experiences can benefit from talking about these experiences and receiving appropriate reactions and support, experiencing emotional recovery and cognitive reconstruction (Rimé et al., 2020). From social and cultural perspectives, the constructive practices of social sharing of emotion can also foster strong bonds between individuals, ultimately creating a safe and supportive space for a wide range of emotions (Stephens et al., 2013). The present work specifically sampled healthcare clinicians from an emergency department (ED) to understand how CAs could be implemented to facilitate social sharing of emotion and promote occupational wellbeing. Working in an ED is known to be intensive and Stressful, involving high workloads and trauma cases that can evoke intense emotions. Understanding social sharing's benefits, challenges, and perceptions among ED clinicians provides insights into how CAs can be designed to support such behaviors and wellbeing at work.

1.2 Structure of Dissertation

The remainder of the dissertation presents as follows: Chapter 2 discusses prior studies on workplace wellbeing and organizational efforts. Chapter 3 introduces existing work on social sharing of emotion, which is the core construct and approach that this study examines as a potential strategy for supporting employee wellbeing. Chapter 4 follows with a review of prior research on conversational agents for mental well-being. Each of these chapters for a literature review concludes with a brief summary and the gaps identified in the literature. In Chapter 5, the study methods employed to accomplish research objectives are illustrated. Details about the research context, participant sampling and recruitment, interview procedure and data analysis are included as well. Chapter 6 reports the study findings, and the dissertation concludes with Chapter 7 that describes implications, contributions and limitations.

Chapter 2 Workplace Wellbeing and Interventions

2.1 Workplace Wellbeing and Occupational Stress

Much of the previous research on occupational wellbeing loosely interpreted workplace wellbeing and wellness with associated concepts, instead of relying on a specific, operational definition (Dagenais-Desmarais & Savoie, 2012; Stephan, 2018). Several reviews support this observation, reporting that extant studies that dealt with occupational wellbeing did not explicitly measure or assess employee wellbeing (e.g., Bautista et al., 2023; Joseph et al., 2018). Indeed, high levels of job satisfaction, engagement, and agency/autonomy are widely used to be indicative of well-being at work (e.g., Narainsamy et al., 2013; Sousa-Poza, A., & Sousa-Poza, 2000). Also, the lack of stress, strain, and burnout is often considered to construct wellbeing (e.g., Jackson et al., 2006), while other streams of studies highlight stressors as a motivational factor for work achievement (e.g., eustress model: Califf et al., 2020; Hargrove et al., 2015) and the role of positive traits and behaviors for workplace wellbeing (e.g., flourishing at work: Hone et al., 2015; Kleine et al., 2019; Ramlall, 2008). Moreover, some studies assess occupational wellbeing, using and/or adapting existing instruments for quality of life and psychological wellbeing (Jarden et al., 2023; Verma et al., 2025).

Despite the various ways of defining and framing workplace well-being, the literature has indicated its significant relationships with multiple levels of organizational and worker outcomes (e.g., Ford et al., 2011; Grant et al., 2007; Kelloway et al., 2023). The levels of depression, anxiety and job satisfaction are linked with individual employees' productivity and engagement (Dewa et al., 2014; Wright & Cropanzano, 2000). Heightened job stress results in turnover (Cavanaugh et al., 2000). In turn, productivity-related factors such as low engagement and absenteeism cause significant costs for organizations (Arnold et al., 2016; Dennison, 2024).

The literature has shown that employee well-being is substantially affected by organizational and work characteristics (e.g., Hart & Cooper, 2001; Califf et al., 2020). For example, organizational climate, which refers to employees' perceptions and experiences concerning organizational policies, practices, and procedures, including justice, rewards, and

support systems (e.g., Hayat & Afshari, 2021; Moliner et al., 2008; Schneider et al., 2017; Viitala et al., 2015), and job agency and autonomy (e.g., Slemp & Vella-Brodrick, 2014; Tim et al., 2013) are among those factors found to be associated with employee wellbeing. Also, perceived organizational support (e.g., Caesens et al., 2016; Kurtessis et al., 2017), social support (e.g., Baruch-Feldman et al., 2002; Viswesvaran et al., 1999) and interpersonal relationships with supervisors and coworkers (e.g., Dimotakis et al., 2011; Stein et al., 2021) have been suggested to have significant impacts on wellbeing at work.

2.2 Organizational Interventions for Workplace Wellbeing

Prior research has suggested and assessed interventions that organizations develop and implement to promote workplace wellbeing. Organizational interventions are a set of activities deployed in organizations to improve employee well-being (Holman et al., 2018). From the organizational stress and health perspectives, organizational engagement can be classified as either proactive or reactive; proactive interventions are primary and preventive interventions that address sources of stress and impediments to employee wellbeing whereas reactive interventions are considered secondary and tertiary involvements to respond to existing risks or issues with employee wellbeing (Holman et al., 2018; Joyce at al., 2016; LaMontagne et al., 2014; Richardson & Rothstein, 2008; Tetrick & Quick, 2011). The target population of the primary interventions consists of all workers with or without psychological and physical strain from stressors. Examples of the primary interventions are conducting job redesigns at the organizational level, such as rearranging work assignments, increasing employees' control (e.g., increased flexibility in scheduling and involvement in decision-making processes), and creating health promotion programs and support groups. Secondary intervention programs target workers at some risk and distress level, aiming to enhance their ability to manage related symptoms. Examples include educational programs teaching stress coping strategies such as meditation, exercise, and cognitive behavioral skills, as well as task management skills like scheduling, goal setting, and maintaining focus. Tertiary interventions focus on restoring and improving functioning in individuals already facing psychological distress or illness. These often involve rehabilitation such as exposure therapy for trauma, and return-to-work programs.

While this occupational health approach provides key intervention strategies for managing mental wellbeing and stress at work, it mainly concentrates on preventing and reducing risk factors and stressors, emphasizing protection from and elimination of negatives. In

contrast, promoting positive experiences at work and within the workplace has also been discussed and integrated into suggestions for enhancing occupational wellbeing (David et al., 2021; Meyer et al., 2013; Redelinghuys et al., 2019; Winslow et al., 2017). Occupational wellbeing programs based on positive psychology aim to foster strengths and increase access to individual, social, and organizational resources (Gilbert et al., 2018; Sakuraya et al., 2020). Activities and training that focus on finding meaning in work, showing prosocial and compassionate behaviors to coworkers, exercising gratitude practices and boosting psychological capital, such as resilience, have been discussed as examples of interventions (Beacham et al., 2020; J. Chancellor et al., 2018; Cosley et al., 2010; Fletcher & Schofield, 2021; Kaplan et al., 2014; Luthans & Youssef-Morgan, 2017).

What is particularly noteworthy in this strength-based approach to occupational wellbeing and interventions is that it considers more diverse dimensions of employee wellbeing. This includes not only physical and psychological health but also emotional, social and life-related aspects of wellbeing beyond the workplace. Accordingly, organizational efforts for wellbeing promotion are suggested to encourage intra- and inter-personal activities that can enhance positive traits of individuals and teams as well as positive culture and values of organizations (Cameron et al., 2011; Meyers et al, 2013).

2.3 The Use of Technology for Workplace Wellbeing and Stress Coping Interventions

Existing work on workplace wellbeing has proposed and examined various interventions, but several limitations have also been identified. First, the lack of employees' engagement and retention in intervention programs has been constantly observed and discussed as a critical obstacle for successful implementation (Meyers et al, 2013). Also, the effectiveness of the interventions has been found to be small or mixed (See reviews: Joyce et al., 2016; Nielsen et al., 2010; e.g., van Berkel et al., 2014; Vuori et al., 2011). The minimal and diverging effects of interventions may be attributed to the lack of differences in individual and job characteristics and organizational environments. As the same sources of stress may act differently for individuals, depending on their appraisals and resources, individuals who may possess different ranges and volumes of resources would develop different develop reaction strategies (Nielsen et al., 2009; Wrzesniewski & Dutton, 2001). Therefore, utilizing technology has been considerably investigated for alternative strategies for intervention implementations. Related work has often discussed web-based online programs and mobile applications (e.g., Chow et al., 2024; Demirel

et al., 2024; Junker et al., 2024). Although only a few studies have been conducted, the use of CAs has been an increasingly promising tool for stress reduction and in the literature as well (e.g., Howe et al., 2022).

My review of the technology-assisted wellbeing interventions at work found mainly three approaches to tackling employee wellbeing. First, one form of assistance provided by technology for wellbeing interventions involves offering supplements to work routines and boosting productivity. This approach heavily relies on the idea that work stressors originate from processes and result from completing tasks, so improving work efficiency and performance can help address them. Tech-assisted productivity tools for wellbeing include automation support for filtering irrelevant emails and enabling personalized information searches (to reduce information overload), maintaining a diary of work achievements, and receiving peer feedback on work habits (and enhancing psychological and social resources) (e.g., Koldijk et al., 2016).

Second, digital tools have acted as delivery platforms for existing interventions. Examples include adapting in-person training curricula into web- or mobile-based formats and administering symptom screening surveys through more interactive interfaces (e.g., Golden et al., 2021). Due to the potential for technology to make interventions more accessible and customized based on reported emotional states and stress levels (Carolan et al., 2017; Pendse et al., 2024), digital methods like emails, webpages, and mobile apps are used to increase availability and engagement. Additionally, from an organizational perspective, delivering interventions at scale via technology is more cost-effective than traditional face-to-face approaches (Ebert et al., 2014).

Third, using technology to monitor and evaluate employees' psychological health has become a focus for occupational wellbeing interventions. Drawing from the literature on quantified wellbeing (e.g., Maltseva & Lutz, 2018), strategies for deploying tracking techniques (embedded in wearable and sensing technologies) and for collecting, analyzing, and predicting psychological and behavioral data have been proposed. Unlike traditional approaches, like subjective reports through intake surveys or annual engagement surveys, analyzing everyday behavioral data (e.g., mouse movements, heart rates, steps) at individual and group levels offers clearer insights into stress sources and employees' reactions to organizational changes or interventions (Naegelin et al., 2023; Robles-Granda et al., 2021). More recently, machine learning algorithms have been applied to detect stress levels of workers (e.g., Kanaparthi et al.,

2022). Overall, referencing the tracking information can help guide intervention ideas that are more tailored to individual employees and work contexts, and the delivery of interventions can be made more promptly. Additionally, because of their unobtrusive nature, sensors help reduce the low adherence and engagement problems often seen in traditional interventions, although privacy and surveillance concerns may increase (Adler et al., 2022; Moore & Robinson, 2016; Chowdhary et al., 2023).

2.4 Chapter Summary

Workplace wellbeing is a complex concept that has often been measured indirectly through proxies such as job satisfaction, engagement, and the lack of stress or burnout. Despite the lack of a clear and complete definition, previous research consistently shows strong links between employee wellbeing and organizational outcomes such as productivity, engagement, and turnover, highlighting the importance of organizational efforts to promote wellbeing at work.

One approach to providing organizational interventions is to address and solve problems at different levels, such as primary (preventive), secondary (supportive), and tertiary (restorative). Alternatively, a growing body of work highlights, drawing from positive psychology theory, that interventions can be designed and applied to develop individual and organizational strengths, thereby expanding the scope of well-being to include emotional, social, cultural, and life-related dimensions.

The integration of technology has been proposed as a promising approach to create more engaging and effective interventions and to tackle challenges linked to traditional occupational wellbeing strategies, including employee engagement in intervention programs. Mainly through web-based programs and mobile apps, technological solutions are shown to boost productivity and lower stress by enhancing task efficiency (e.g., through task automation). They also function as platforms for delivering interventions in more accessible and interactive formats (e.g., mobile apps, online training) and for monitoring individuals' behavioral and physiological states to evaluate and address employee stress in real time. The main areas that existing research has focused on highlight the benefits of adopting different types of technology. However, these applications often overlook various aspects of occupational wellbeing, such as social interactions among workers, and are reported to experience attrition due to a lack of personalization and interactivity.

Building on the evolving discussions on organizational interventions that underscore the importance of a holistic, context-sensitive, and multi-level approach to workplace wellbeing, my dissertation examines ways to augment the emotional, cognitive, and social capacities of individuals at work as a type of activities that promote their wellbeing. Specifically, focusing on the social sharing of emotional behaviors, the dissertation also examines the potential of CA implementation to better engage employees in such social behavior. The following chapter discusses the social sharing of emotion in more detail and reviews its functions for employee well-being and stress relief at work.

Chapter 3 Social Sharing of Emotion

3.1 Conceptualizing Social Sharing of Emotion

Social sharing of emotion refers to one's behavior of speaking to others about events and emotions related to those experiences (Rimé, 2009). The social sharing of emotion manifests in several forms, such as having face-to-face dialogues and talking over the phone. Also, as a large portion of interpersonal communications in daily life have moved and been happening in digital spaces, the sharing of emotional experiences with others on social media and blogs have been examined in the literature (e.g., Bayer et al., 2016; Hidalgo et al., 2015; Kivran-Swaine & Naaman, 2011; Vermeulen et al., 2018). More recently, talking to intelligent agents such as avatars and robots about their experiences and emotions has become one of the study streams (e.g., Ando et al., 2023; Lajante et al., 2023, Pentina et al., 2023).

The social sharing of emotion seems to focus on an individual's sharing behavior (e.g., talking to another person). However, it is more appropriate to conceptualize it as a dynamic process that involves multiple intra- and interpersonal activities among more than two participants in a conversation (Berger, 2011; Brans et al., 2013; Luminet et al., 2000; Rafaeli & Sutton, 1989; Rimé, 2009; Stanton & Low, 2012; Weiss & Cropanzano, 1996). From the perspective of the speaker or the initiator of the sharing behavior, one typically undergoes several cognitive and emotional processes before engaging in the act of sharing. This includes experiencing an episode that elicits emotions, feeling the urge to discuss it, and navigating whom to talk to, how, and when. Additionally, during moments of social sharing, the speaker may be influenced by the listener's reactions, which can lead to varying dynamics and outcomes of the sharing. For comparison, writing letters and journals is often discussed as a means of social sharing of emotion as well (e.g., Park et al., 2021). However, these forms of sharing practices are solitary acts, not necessarily requiring a target audience or a conversational partner while including descriptions of a certain episode and the writer's associated emotions and thoughts. Even if the writer has a target audience in mind, it is often symbolic such that the sharing may

end up being single-directional or private (Rimé, 2009; Rimé et al., 2020). Thus, this dissertation focuses on bi-directional communication for the social sharing of emotion.

Moreover, it is important to highlight that an individual's social sharing processes result from dynamic decision-making processes. This means that people choose whether to share and what, with whom, and how to share based on the consideration of various factors. Fundamental assumptions made by early studies on the social sharing of emotion suggest that emotionally evocative events prompt individuals to process related emotions and thoughts, and that people have an inherent desire to discuss these emotional experiences with others (Rafaeli & Sutton, 1989; Rimé et al 1991), which indicates that sharing behavior is a natural reaction to emotional events. Several observations indeed support the idea, showing the social sharing is a universal behavior across diverse cultures and populations. More than 80% of people who had an emotional experience reported that they talked about it with others afterwards, and this tendency was similar across different countries and cultures with different ages and genders, regardless of positive and negative valence (Rimé et al., 1992; Singh-Manoux & Finkenauer, 2001).

However, despite the innate tendency to talk about emotional experiences to others, people opt not to share in some circumstances. Potential constraints on the sharing behavior suggested include self-conscious emotions such as shame or guilt associated with one's experience (Rimé, 2009). Also, anticipating and experiencing concern about limited or unsupportive reactions from others can be one major issue that restrains people from sharing with others. Emotional burden that their sharing behavior may pose on the listener(s) can also result in hesitancy in initiating the sharing behavior (Rimé, 2009). Additionally, differences in interpersonal norms and social expectations across different cultures regarding the idea about what behaviors and emotions are well accepted can be another challenge to social sharing practices (Kim, 2009; Singh-Manoux & Finkenauer, 2001).

3.2 Effects of Social Sharing of Emotion

Given the interpersonal characteristics of the social sharing of emotion, the impacts of the social sharing of emotion can be discussed at several levels including intrapersonal and interpersonal perspectives (e.g., Barasch, 2020). First, research shows there are intrapersonal effects on both sides of the sharing event – the sharer and the listener. The sharer can benefit from the sharing experiences by getting off chest distress and negative emotions or amplifying positive emotions and having the chance to verbalize what happened and what they felt about it

and obtain the listener's responses (Cropanzano et al., 1997; Torre & Lieberman, 2018). Putting feelings and experiences into words facilitates the sharer in making sense of what they experienced and clarifying the situation and their psychological reactions to the experience that might have been relatively unclear at the time. This sharing, meaning-making process is found to lead the sharer to take a step back and examine the event from a bigger picture (e.g., psychological distancing: Park et al., 2016). Also, the sharing of experience can even better promote more constructive narrative development and reappraisal of the emotional event when provided with the listener's perspective (Kross et al., 2023). By working through the cognitive and social processes, the sharer can, in turn, relieve negative emotions such as distress and anger and enhance positive affect (Rimé et al., 2020). Additionally, the sharer can get a chance to obtain the feeling of validation and emotional support (Zech & Rimé, 2005).

Engaging in social sharing as the target listener can have various psychological and social effects (Barasch, 2020). When someone shares personal or emotional experiences, it often strengthens the bond between the sharer and the listener. Listeners may feel honored or valued when others confide in them, indicating intimacy and trust (Collins & Miller, 1994). Additionally, listeners tend to respond with their own disclosures, fostering reciprocity and reinforcing the connection. However, there are potential negative effects of acting as the listener, depending on the content and intent of the emotional experiences shared. If the share appears self-promotional or insincere (e.g., bragging), it can create negative impressions or social distancing. Similarly, gossip—while promoting bonding through shared knowledge—can also harm the listener's perception of the sharer, making them seem less trustworthy or likable. Moreover, suppressing or hiding emotions can hinder rapport and reduce chances for meaningful connection.

Despite the positive impacts of social sharing of emotion at the intrapersonal level, studies also suggest that engaging in such sharing does not always produce positive outcomes and may even lead to drawbacks. For instance, if the sharer does not learn to reframe or reconstruct the emotional experience from interactions, sharing negative emotions can trigger reactivation of the negative episode, maintaining or amplifying the adverse state rather than resolving it (Rimé et al., 2020). Additionally, sharing negative emotions may result in co-rumination, which involves repeatedly revisiting problems (Spendelow, Simonds & Avery, 2017). Although empathetic support from the listener can offer temporary emotional relief,

without cognitive strategies like reframing and reappraisal, the support may have limited or even negative long-term effects (Behfar et al., 2020). These mixed findings highlight the importance of listener responses in determining whether social sharing of emotion is ultimately beneficial (Barasch, 2020).

3.3 Social Sharing of Emotion at Work

While the topics of the social sharing of emotion studied include a wide range of events and episodes in terms of emotional intensity, valence, and context, from natural disasters and terror attacks to the loss of a loved one, to stressful events in everyday life (Rimé, 2009), there have been only a few studies that concerned the social sharing of emotion at the workplace (McCance et al., 2013). Topics of these studies include challenging interactions with disrespectful customers in the customer service context (Baranik et al., 2017; McCance et al., 2013; Tremmel & Sonnentag, 2018), various types of anger-provoking events including coworkers' inappropriate and unjust behaviors (Geddes & Stickney, 2012), and salespersons' loss of a sale to a competitor (Brown et al., 2005). While the content of the social sharing was not elaborated, the social sharing behavior of healthcare professionals and social services agents was also examined (Reynolds-Kueny & Shoss, 2021; H. Wang et al., 2021). Moreover, the findings of these studies indicate social sharing of emotion is effective for mitigating the intensity of the experienced negative emotions (e.g., anger) and emotional exhaustion (Baranik et al., 2017; Geddes & Stickney, 2012). These positive effects of social sharing of emotion suggest its potential as wellbeing interventions.

However, more empirical evidence is required to understand in what conditions the sharing behavior can be best effective. Patterns of the social sharing practices (e.g., what to share and with whom to share) and reasons for emotion sharing (e.g., why share), constraints that people face and prevent them from doing the sharing behavior haven't been explored much in the workplace wettings. Most of the studies on social sharing at work and of work-related events were carried out in context-neutral settings (e.g., lab experiments) and asked whether or not they have the experience of social sharing, assuming that individuals are situated in an environment in which they can share their emotions and emotional experiences with others. These studies can show whether or not social sharing is beneficial, but lack an explanation of how it is so. For example, there can be various social and organizational factors that affect the sharing processes with colleagues or supervisors, such as power dynamics and relationships with them, which have

been considered critical factors in social interactions in organizational settings. Related areas of study, such as disclosure and emotional expressions at work, suggest that employees often display inauthentic emotions and hide their identities and characteristics to minimize potential costs of showing their genuine emotions and self with others (e.g., social stigma and impression and reputation management) (Follmer et al., 2020). The employees' perceptions about potential outcomes of the emotional expressions are shaped by the work culture, social norms, and experience and interaction with colleagues in the organization. Thus, it is important to study the interplay among personal, social, cultural/organizational constructs in the social sharing of emotion processes.

3.4 Chapter Summary

Although sharing emotions socially is a universal response to emotionally intense events, viewing it as a product of mental and behavioral processes better explains how individuals choose to share and how this supports emotional processing and wellbeing. Social sharing of emotion has both intrapersonal and interpersonal effects. For the person sharing, expressing emotional experiences can clarify thoughts, promote psychological distance, and aid emotional regulation and meaning-making. These benefits are often amplified when the listener offers validation or perspective. For the listener, being confided in can build a sense of closeness, trust, and social value, strengthening bonds and encouraging reciprocal sharing. However, these effects depend on several conditions. It is because repeated exposure to negative disclosures without positive framing can cause emotional fatigue or co-rumination, and insincere disclosures—like bragging or gossip—can harm social impressions and relationships, requiring more constructive ways to carrying out social sharing of emotion.

Based on the positive effects on emotion regulation and cognitive reflections, the social sharing can be suggested as an intervention facilitated at work for employee wellbeing. However, the implementation of the social sharing of emotion in the workplace settings are underexplored. While some studies have examined emotional sharing in workplace settings—such as customer service interactions or coworker conflicts—most have been conducted in context-neutral environments and fail to account for the complex social structures of real workplaces. Since factors such as power dynamics, organizational culture, and norms around emotional expression shape whether and how employees share emotions, employees may suppress or strategically manage emotional disclosures due to concerns about stigma, reputation,

or professional consequences. Building on these insights, this dissertation aims to explore how social sharing of emotion unfolds in workplace settings and to examine its potential as a relational and organizational resource for promoting employee well-being.

Chapter 4 Conversational Agents

This chapter describes a basic concept of conversational agents, including definitions and general applications. It also reviews prior studies examining CAs to improve psychological well-being in both general settings and workplaces. A chapter summary is provided in the final section of the chapter.

4.1 Basic Ideas of Conversational Agents

Conversational agents (CAs) are defined as intelligent systems or assistants that can engage in dialogues with users in human language (Griol et al., 2013). While there are other terms, such as chatbots, smart assistants, and conversational artificial intelligence that address a similar concept, this dissertation utilizes the term CA to highlight its capability of engaging in dialogues with users in natural language and completing tasks (Dale, 2016).

Although the models and algorithms used to build and operate CAs influence their functionality, the capabilities of CAs have been diverse and increasingly expanded. When CAs were in their early models, CAs' capacity was confined to simple pattern matching producing highly scripted dialogues within specific contexts. This often led to people perceiving the low utility over time and ultimately, discontinuing the use of CAs (Chandra et al., 2022). However, recent applications of CAs (including generative AI such as ChatGPT and Claude) have demonstrated greater efficiency and potential in various use cases, along with increased popularity. Recent models of CAs can engage in multi-turn conversations, maintaining context based on previous statements and adapting to new information added during the conversations (Li et al., 2021). While engaging in the conversations, CAs can also help users accomplish various tasks by following up on the conversations.

Various functions of CAs that prior research has investigated can fall into two main areas: a) task completion and functional assistance and b) social interactions. Applications of CAs for the former focus on improved performance and efficiency for completing specific tasks. CAs enable users to query databases and knowledge repositories using natural language, without needing to use formal query terms and operators (Shum et al., 2018). CAs can also be used to

automate routine tasks, such as scheduling appointments and providing frequently asked questions and responses (Lee et al., 2019; Mikic-Fonte et al., 2018). More recently, CAs have been involved in providing suggestions for complex decision-making (Ferreira et al., 2021; Hildebrand & Bergner, 2021; Reichert et al., 2022, 2025) and mediating and facilitating collaboration among multiple parties and team members (Amiot et al., 2025; de Araujo et al., 2025; Johnson et al., 2025; Toxtli et al., 2018).

Another category of CAs' roles is to serve as social agents, mimicking interpersonal interactions of human beings (Shum et al., 2018; Chaves & Gerosa, 2021). Early studies on CAs from the relational perspectives suggested that the dialogues with CAs such as Siri, Alexa and Echo were not comparable to having conversations with other humans. Limitations such as the need to initiate a conversation with questions or commands/requests (e.g., wake words) and the absence of turn-taking were found to hinder interactions with CAs from being more engaging, resulting in users having decreased motivation to continue using the agents (e.g., Clark et al., 2019; Luger & Sellen, 2016; Porcheron et al., 2018). However, even with the limited capabilities of agents, users could participate in dialogues with CAs as if they do with other humans and identify the social and emotional properties of CAs (Reeves & Nass, 1996; J. Zhang et al., 2024). For example, adopting simple interaction styles and cues that emulate natural human conversations (e.g., saying hello and goodbye and introducing itself with a human-like name) were sufficient conditions to trigger the social presence of an agent, and mindless interaction was also facilitated without embodied appearances of human-like chatbots (Araujo, 2018; Go & Sundar, 2019; Tourangeau et al., 2003). Now, being equipped with advanced learning models and a wide range of databases and presenting more natural interaction skills, the perceived social and emotional intelligence of CAs has surged in that people can engage in more natural and personalized conversations with CAs, receiving social support tailored to user's problems and building emotional bonds (Sufyan et al., 2024; Tu et al., 2023).

4.2 CAs for Mental Wellbeing and Stress Relief

CAs have demonstrated potential in enhancing psychological well-being and lowering stress levels. Besides the social benefits of the agents as briefly described above, increased accessibility, such as more flexible timing and the absence of logistical barriers compared to traditional clinical health care services, is another advantage of using CAs as mental health resources. This benefit has been particularly highlighted during and after the COVID-19

pandemic, which significantly affected people's mental and physical well-being worldwide (Zhu et al., 2021).

Among the various roles that CAs serve in supporting psychological well-being is becoming a conversational partner that offers social support to the user (e.g., Kindness et al., 2017; Medeiros et al., 2021). Listening to the user and providing kind messages for emotional support not only contribute to relief from mood swings and anxiety (Ahmed et al., 2022, Drouin et al., 2022; Li & Zhang, 2024) but also further build companionship and attachment to the agents, which help reduce isolation and improve emotional regulation (De Freitas et al., 2025; De Gennaro et al., 2020; Dosovitsky & Bunge, 2021). Furthermore, the fact that the user can have dialogues with the CA in a non-judgmental manner helps the user destigmatize talking about struggles and feel heard and understood, facilitating seeking mental health support (Ho et al., 2018; Koulouri et al., 2022; Lee et al., 2023; Y. Wang et al., 2025).

Also, CAs have been utilized to offer guidance on wellbeing and stress management exercises, such as reflection, mindfulness practices, and cognitive reconstruction. These activities allow users to have an opportunity to revisit and restructure negative events and regulate emotions. For example, reflection activities help individuals review past experiences and make better sense of those experiences as well as themselves, which leads to positive effects on their mood and cognitive change (e.g., Akiri et al., 2025; Baumer et al., 2014; Jung et al., 2024; Park et al., 2021).

While following tutorials and guidelines for cognitive and behavioral adjustment on their own can be challenging (Cohn & Lynch, 2017), CAs can offer structured but personalized and adaptive walkthroughs based on user information and preferences, resulting in more effective and accommodating support provision (e.g., Park et al., 2021; Song et al., 2024). Moreover, given that staying motivated and engaged to continue working on wellness activities is challenging (Vaghefi & Tulu, 2019), having CAs as a social companion or coach by side is found to help users show increased intention to participate in the training and engage over a longer period of time (Kumar et al., 2023, 2024).

Assessing and notifying psychological states is another key area where CAs can aid with psychological wellbeing (e.g., Anmella et al., 2023). CAs can ask the user questions about their psychological status in a natural flow and detect emotions and thoughts from communications with them (You et al., 2023). Moreover, with the integration of sensing technologies and

monitoring devices, one's physiological states, such as blood pressure and sleep, and physical activities, including walking steps and workouts, can also be incorporated into self-reports, better providing evaluation references for stressors, accompanying emotions, and consequences (Nepal et al., 2024). The information gathered can then be used to screen symptoms and identify risk factors related to psychological disorders such as depression, anxiety, and track mental status over time. Individuals undergoing treatment or experiencing mild symptoms of a specific disorder can also regularly check in with a CA, sharing their mood and behaviors daily (e.g., Burton et al., 2016; Bérubé, et al., 2021; Chung et al., 2020). The screening and tracking functionalities can also help individuals better understand their symptom patterns or lapses and consider additional assistance if needed (Moilanen et al., 2023). Furthermore, information collected from the user-chatbot interactions can serve as records for referrals and future professional treatment (Habicht et al., 2024).

4.3 CAs for Workplace Wellbeing

In addition to promoting psychological wellbeing among the general population, improving employee wellbeing and stress management in the workplace has been examined as a CA application in related research areas. My review found a handful of existing studies that specifically explored CAs for workplace wellbeing (Baek et al., 2025). Building on the occupational stress intervention model (e.g., Richardson & Rothstein, 2008), these studies predominantly employ preventive intervention strategies mainly in two ways. First, CAs have been studied for enhancing individual employees' productivity and performance, which are primary and preventive forms of employee wellbeing support. Since job-related factors, such as workload and autonomy, influence the levels of worker wellbeing (Ilies et al., 2010; Shirom et al., 2006), assisting with task management and work efficiency attention may positively impact workplace wellbeing. CAs, therefore, have been suggested to assist in setting daily goals, planning work, reflecting on work progress and emotional states, and protecting from distraction and boosting engagement (e.g., Grover et al., 2020; Kocielnik et al., 2018; Williams et al., 2018). These activities indeed helped employees improve self-awareness regarding their productivity and task organization, gain new perspectives on work, and consider higher-level goals. What is worth noting is that these studies related the enhanced productivity of employees with wellbeing studies but did not explicitly measure the effects of these CAs on wellbeing-related outcomes like burnout and satisfaction. Instead, it was assumed that better management of cognitive

demands, distractions, and tasks would lead to improved worker wellbeing and reduced stress, primarily through increased productivity and attention. Moreover, while the occupational wellbeing intervention literature recommends that primary interventions address both organizational and individual factors, the CA studies reviewed mainly focused on individual-level work management and productivity. For example, interventions that implement and promote changes to organizational structure and culture, including social activities and professional support groups, are also discussed (Richardson & Rothstein, 2008), but the studies discussed above lack consideration of these elements.

The other stream of CA research on workplace wellbeing has focused on employees' coping skills for psychological distress, mainly categorized under the primary and secondary types of intervention. One of the purposes of incorporating CAs is to extend and adapt existing interventions and assessments in a more interactive way. As the low level of awareness to and engagement in organizational mental health resources has been pointed out as major challenge to participation in interventions (Azaroff et al., 2010), several studies designed CAs to deliver existing resources to workers more engagingly and conversationally. For example, Hungerbuehler et al. (2021) developed a chatbot called Viki, which uses human-like visual and storytelling techniques to guide users through educational materials about mental health and wellbeing and the screening process, and the employees' engagement rate was higher with this chatbot-assisted intervention compared to the same materials without the chatbot. Another functionality of CAs mostly found in the studies reviewed is monitoring and/or analyzing employees' psychological states and mental health-related symptoms, including stress, depressive symptoms, and burnout. Hence, self-questionnaire surveys are integrated into dialogues between the chatbot and the user, asking questions naturally in terms of the order, language and tone to screen and monitor employees' psychological status (Dutta & Mishra, 2023; Jackson-Triche et al., 2023; Hungerbuehler et al., 2021). Sensing devices are also connected with CAs, and observations from the sensors are incorporated into the assessment process (Shyamal et al., 2023). Tracking employees' psychological status can be intended to better understand their symptoms and circumstances so that appropriate interventions can be provided.

Table 4.1
Overview of Prior Studies on CAs for Workplace Wellbeing

Authors (Year),	Study Goals	Methods	Study Sample	CA Intervention Target	Outcome Measures

Publication					
Allan, D. D. (2024), Behaviour & Information Technology	Examine effectiveness of the CA-based interventions on productivity and work performance	4 days of use of the CA; Survey questionnaire	Small-to-medium-sized enterprise owner-managers in New Zealand (n=14)	Providing information and techniques about stress-is-enhancing-mindset via video and text-messages on Whatsapp; rule-based decision tree structure	Stress-is-enhancing mindset, work performance (quality of work output, sustaining focus, engagement), acceptability (intention to continue to use), perceived relationship (friendship) with the CA
Anmella et al. (2023), JMIR	Test feasibility and effectiveness of the chatbot system (Vickybot)	1 month of use; Survey questionnaire	Primary care patients (n=15) and health care workers (n=19): a total of 34 with psychiatric diagnosis in the past (29%) or currently (88%); 100% of which showing low-to-severe anxiety symptoms, 94% with depressive symptoms, and 65% reported work-related burnout.	Vickybot on smartphone-based app for screening, monitoring, and delivering evidence-based, personalized psychological interventions to reduce anxiety, depressive symptoms, and work-related burnout (as a part of the PRESTO (primary care digital support tool in mental health) project)	User engagement (including usability, satisfaction, acceptability, adherence for a month, completion, compliance, engagement), use log (what features and functions on the app were used)
Benke, Knierim & Maedche (2020), CSCW	Enhance emotion management for distributed teams	Participatory design workshops and exploratory evaluation of the designs in experimental conditions	Three groups for experimental conditions emulating remote collaborative work settings (n=27)	Emotion management	Emotion competency including awareness and communication efficacy
Chaudhry & Islam (2022), MobiQuitous	Test a prototype of mobile application that integrates a	Survey questionnaire on the test usage of a system prototype	Healthcare workers (n=22)	Chatroom provided to get information support from a conversational agent by responding healthcare workers'	Usefulness; Acceptance

	conversational agent for stress management for healthcare workers			questions about whether they should go quarantine based on monitoring the COVID-19 related symptoms and about patient care related issues.	
Dutta & Mishra (2023), Personnel Review	Examine the roles of human and technology agencies in enabling mental wellbeing through technology from HRM perspective	Case study to understand how the chatbot deployment has affected work regarding HR and wellbeing interventions & individual interview	HR managers and C-level executives at different organizations that were already utilizing chatbots	A chatbot; Sentiment (positive, neutral, negative) collected from the chat, analyzed and sent to a dashboard for the leadership team to inform intervention ideas: e.g., "people to meet" feature embedded to flag and address employees at risk of disengagement and attrition	Transitioning to hybrid working, frequent check-ins and touch points, limitations of AI chatbots for wellbeing,
Hungerbuehler et al. (2021), JMIR Formative Research	Develop a CA system that can conduct evaluation of stress, burnout, mental health problems such as depression at the workplace in a more engaging and cost-effective way	Focus group and phone interview for needs assessment	(n= 77)	Viki: conversational and decision-tree based AI for wellbeing assessment with gamification approach (for a story and feedback to enhance engagement in the survey) and survey questionnaire provided in the conversational format (and pre-defined responses using standard options for each questionnaire); send aggregated and anonymized data and report to a dashboard for management; provide personal feedback on the assessment with safety protocol for referral and care network, emergency services (if any serious risk is identified)	Assessment response rate and engagement; the level of anxiety, depression, stress and insomina
Jackson-Triche et al. (2023), JMIR	Introduce web-based chatbot which focuses on screening the presence and severity of mental health	Field study as a part of a university's project for employee coping and resiliency program	University employees (n = 3785 out of 34,790 who had access to the system)	Web-based chatbot system can triage or screen to guide users to services appropriate for their needs; determining what treatment is needed based on the	The rate of access to each function of the chatbot system

	related symptoms of employees and triaging them to customized, proper resources with greater access			user input including individual treatment (emergency/urgent/no treatment is needed including individual call-back follow ups by a navigator), website (equipped with web-based content and curated list of mental health apps and training videos), and special interventions (townhalls, resilience groups, wellness workshops; considering mindfulness, gratefulness practice, social stigma)	
Kamita et al (2020), CSCW Companion	Provide self-guided mental healthcare program for stress reduction	2-week comparative experimental study	Graduate students and working people (n=30)	Smartphone based chatbot that assess psychological state including daily anxiety and provide therapy process with images; developed based on the SAT method (structured, interview-style counseling and therapy techniques) by helping users become aware of their own feelings and gain desire for solving the stress-related problems	Number of access to each function of the chatbot system; psychological scales (self-rating depression, self-trait anxiety inventory), emotional support peer network , self-esteem
Shyamal et al. (2023), International Research Journal of Innovations in Engineering and Technology	Provide AI based solutions for emotional status detection	Not clear	IT workers (n: not stated)	Provide social support and detect prevalent concerns and patterns along with face recognition and mood detection and activity recommendations based on moods and severity levels, and voice analysis	Depressive symptoms using the Depression Anxiety Stress Scale; Accuracy of the depressive symptom detection from face recognition and voice analysis; the rate of engagement with the chat

Yorita et al (2023), ROBOMECH	Develop and test a framework for providing social support through a chatbot and physical robots	Experience sampling model to see whether the sense of coherence framework (comprehensibility, manageability, and meaningfulnes can measure the stress level of users of the chat systems	(n=12)	Chatbot (on a mobile messenger LINE) connecting physical bots at home and workplace; The chatbot in the experiment asked questions about the level of stress and provided the assessment based on the sense of coherence model; the chatbot was supposed to provide support for better stress coping to people with low scores on the assessment but there was no participants with the low level so no support manifested within the chatbot	Usefulness, easiness, attitudes and intention use chatbot

4.4 Chapter Summary

CAs have demonstrated considerable potential in enhancing psychological well-being in several aspects: CAs serve as empathetic conversational partners, providing emotional support that helps alleviate anxiety and mood disturbances while fostering a sense of companionship and emotional regulation. Their non-judgmental nature encourages users to express personal struggles more openly, thereby reducing stigma and facilitating help-seeking behavior. In addition to emotional support, CAs guide users through wellness practices such as mindfulness, reflection, and cognitive restructuring. These CA-assisted interventions are often more effective due to their ability to personalize and adapt content based on user preferences. Moreover, CAs help sustain user engagement in wellness activities, a common challenge in self-guided interventions, by functioning as interactive and motivational coaches. Another critical function of CAs is the assessment and monitoring of psychological states through natural dialogue and, increasingly, through integration with sensing technologies that capture physiological and behavioral data. This enables early detection of symptoms, supports ongoing mental health tracking, and facilitates referrals to professional care when needed.

From the perspective of social sharing of emotion, CAs also hold promise as emotionally responsive listeners and mediators through which employees communicate with others.

Equipped with social affordances, CAs can engage users in conversations that range from mundane daily reflections to significant life events, offering appropriate reactions and support. Several studies have drawn on the theory to design CAs that prompt expressive writing or emotional disclosure through chatbot interactions. These approaches suggest that CAs can facilitate emotional release and self-reflection, which are central to the social sharing of emotion. However, these interventions are focused on individual exercises, and thus may not fully leverage the social and cultural benefits that collective emotional sharing can provide in workplace settings.

Despite these findings and implications, the application of CAs for workplace well-being purposes remains relatively underexplored. A few studies that developed CAs for workplace wellbeing primarily focused on individual-level interventions. For example, these studies aimed at either enhancing productivity and task management, which often assume psychological benefits such as stress reduction or job satisfaction, or administering the monitoring and detecting any potential risks for wellbeing. These studies show that prior research tends to overlook organizational-level strategies that CAs could apply, such as fostering supportive relationships and climates and implementing systemic changes. These gaps highlight the need for more research to develop CA implementation ideas for workplace wellbeing that address multidimensional aspects of workplace environments, including social relationships and organizational culture.

Taken together, the literature on organizational interventions, social sharing of emotion, and CA-based well-being support suggests the role of CAs for wellbeing in workplace contexts. This dissertation thus aims to explore how CAs might facilitate more constructive and socially meaningful interactions among employee based on observations on employees' social sharing of behavior practices at work.

Chapter 5 Research Methods

This study employs qualitative approaches to achieve the research objectives. Semi-structured individual interviews were selected as the data collection method, and thematic analysis was conducted to interpret the interview data. Interview participants were sampled from the emergency department setting.

5.1 Research Context: Emergency Department Clinicians

Healthcare clinicians at an emergency department (ED) were chosen as the study sample, and the interviews were conducted with them for several reasons. First, it was assumed that ED clinicians would have a high desire for social sharing behavior, and they might have a lot to share about their thoughts and experiences regarding such behavior. EDs are reported as high-stress work environments where clinicians frequently handle trauma cases and experience greater emotional intensity and negative feelings at work, leading to lower wellbeing compared to other occupations (e.g., Schooley et al., 2016; Q. Zhang et al., 2020). Based on the literature that has found a positive relationship between the valence and intensity of emotions evoked by a specific event and the frequency of sharing behavior (Rimé, 2009), the ED professionals were expected to be good interviewees to discuss lived experiences related to social sharing and wellbeing.

Additionally, EDs offer a unique, ideal environment to study social interactions and support among employees, including the social sharing of emotion due to their highly interdependent structure. EDs are described as "institutionalized [work] setting[s], characterized by rigid work routines and strongly socialized professional role identities and responsibilities (Valentine & Edmondson, 2015, p.470)." The work of ED clinicians involves close collaboration with other positions, relying on a care team for specific patients or cases, while team members constantly change due to staggered work schedules. These job traits, which require extensive coordination and communication among team members, indicate that ED professionals can be a valuable source of information for understanding potential needs for improved social sharing of emotion and support systems that account for complex organizational structures, norms, and rules.

5.2 Data Collection: Semi-structured Interviews

Individual interviews were chosen as the primary method of data collection. As the dissertation aims to understand employees' experiences and perspectives regarding their well-being and social sharing of emotion and behaviors at work, the interview was considered an optimal method for eliciting detailed and rich accounts of lived experiences. Also, the social sharing of emotion often entails personal and private conversations, so the one-on-one setting was considered appropriate to provide a more comfortable and safer space for interviewees to talk about their reflections on social sharing of behaviors and wellbeing practices.

The structure of the individual interviews in our study followed the semi-structured interview method. The semi-structured interview is one of the individual interviewing methods that combines the structures of standardized and unstructured interviews. In a fully structured or standardized interview, an interviewer is required to ask each interviewee the same set of questions in a consistent order, whereas an unstructured or unstandardized interview is conducted by having an interviewer generate questions as they interact with an interviewee. Blending the structures of both interview types, the semi-structured interview allows an interviewer to ask a set of pre-set questions to interviewees but at the same time, it gives room for asking each interviewee questions that are personalized and context-appropriate (Rubin & Rubin, 2011). Thus, the semi-structured interview still maintains standardized guidance of the interview structure and topic but provides a better opportunity to build rapport with interview participants and capture more individual context and subtle nuances. Given the topics that were covered in the interviews for this research, including personal experiences regarding their wellbeing and interactions with others, the semi-structured interview method was utilized to ask questions about various experiences and feelings that they may have differently.

The interview protocol was developed focusing on the two main areas this research aims to understand: 1) emotion and well-being management at work, including overall organizational interventions and social sharing of emotion behavior, and 2) ideas about CAs as wellbeing interventions. Specifically, questions for wellbeing interventions were asked about participants' coping skills and strategies for negative emotions and experiences, their experiences of talking with colleagues about trauma cases and/or daily stressful events, organizational support, and interventions for dealing with stressful and emotionally charged incidents. Questions were followed to understand their thoughts and attitudes towards utilizing CAs for social sharing of

emotion and dealing with negative experiences. To craft a comprehensive protocol, the working draft of the interview protocol was reviewed by three experts in qualitative methods and two leadership personnel at an ED and adapted for better cultural appropriateness, clarity, and flow. Also, two pilot interviews were conducted to assess the effectiveness of interview questions and the structure and timing/length of the interview.

Because there was no existing technology, such as a CA, for employee wellbeing support and interventions at the participants' workplace for them to reference, several interview techniques were employed to gather participants' views on the potential of CAs for their wellbeing and emotion sharing in an effective way. First, before talking about their views on using CAs, a brief explanation of what this study considers a CA, including real-world examples like OpenAI ChatGPT and customer chatbots on commercial websites, was provided to help them visualize possible CA interfaces. Also, questions about their familiarity and prior experience with CAs were asked, followed by modified questions regarding CA ideas and subsequent follow-ups. Furthermore, a scenario-based interview technique was employed to help participants better assess needs and brainstorm potential CA requirements. I initially developed a set of scenarios based on a literature review of major stressors faced by emergency department clinicians. These scenarios were then discussed and reviewed during stakeholder and pilot interviews to ensure their relevance to ED environments and the appropriateness of language and expressions used. Incorporating feedback from these discussions, the scenarios were revised, and a total of four scenarios were finalized and used during the interviews. Appendix A displays the scenarios, the context of which covers the topics of conflict with the patient's family over care decisions, taking care of a critical patient during a night shift, managing aggressive patient behavior, and disagreement among healthcare team members.

5.3 Participant Recruitment

The convenience and snowball sampling methods were used to recruit interviewees. Entry into an emergency department at a hospital in the Midwest was facilitated through the professional networks of one of my dissertation advisors, and this helped initiate and consolidate the recruitment process. Participant recruitment was conducted using flyers and email listservs. Physical copies of the flyers were created and posted in the staff lounge and on the bulletin/announcement boards within the ED units. I was able to access these locations with the

help of a clinical research project coordinator in the ED, who toured me around the site and accompanied me to leave and attach the flyers in the units.

Additionally, the email advertisement was distributed through two email listservs that ED professionals were part of. One of these is called a news channel, which is mainly used to share non-work-related information, including advertisements for social events, programs, and household goods for sale. Using this listserv, the clinical research project coordinator and I sent out emails about the study. The email recruitment posting included a digital copy of the flyer along with a brief overview of the interview topic and purpose, structure, estimated duration, compensation, and a link and QR code to a Google Form for signing up to participate. One more email was sent out to the other email listserv that serves nurses and technicians. A clinical nursing supervisor I met during a preliminary stakeholder interview wrote the email introducing this study, including my email address for contact.

Furthermore, at the end of each interview session, I asked interviewees, for snowballing, to spread news about this study and share my email address, the recruitment flyer and/or the sign-up link with their colleagues who may be interested in contributing to the study. I was not able to follow up to see whether they reached out and referred their coworkers. However, a couple of the interviewees said during the interviews that they heard about this study from colleagues, so they were able to sign up, and that they sent the link to the sign-up form to the group chat with co-workers. All of these participant recruitment methods were discussed with and approved by the University of Michigan IRB.

5.4 Interview Procedure

Once interested individuals signed up and provided their basic information about the position or role at the ED, contact details, and preferred meeting times, a research assistant contacted them through the provided email with a Calendly booking link and a digital informed consent form via Google Forms. A brief overview of the interview process, data collection and analysis methods—including data protection measures, potential benefits and harms, and participant rights—was included in the consent form (see Appendix C). Participants were asked to read and sign the consent form before attending the interview. Those who consented were then asked questions about their personal information for compensation purposes and background details, such as demographics, years of experience at the ED, familiarity with CAs, and stress

levels. An interview confirmation email, with a Zoom link and a reminder, was sent to participants after receiving their consent and meeting appointment booking.

All the interviews were conducted via Zoom. Although the interviewees were asked in the sign-up form to choose their preferred meeting location from three options – a private meeting room at the ED, a meeting room at the nearby library, or virtual video conferencing such as Zoom – all participants preferred Zoom. During the interviews, one of the research assistants and I joined the interviewee. I asked questions directly to the interviewee as the interviewer, while one of the two research assistants, who had completed the human subjects research protection program, took notes and alternated attendance. Although all the participants came to the interview after completing the informed consent, they were reminded of the information in the consent at the start of the meeting. All interviews were audio- and video-recorded with the participants' permission. The collected data were transcribed and reviewed using Rev, a transcription service (Rev.com, 2023). The interview transcripts were imported into ATLAS.ti Web (ATLAS.ti Scientific Software Development GmbH, 2023), a qualitative analysis software that allows for cloud-based collaborative coding.

5.5 Data Analysis

As a result of the recruitment activities, a total of 20 ED professionals participated in individual interviews. However, three of them — a social worker, a patient services assistant, and a technician – were excluded from the final data analysis. As the initial goal was to recruit participants from diverse roles within the ED to explore employee well-being and interactions with others at work, the preliminary review of the interview data showed that the experiences most relevant to the research objectives came from those directly involved in bedside clinical care: The roles of these three excluded participants mainly involved non-invasive patient comfort measures and administrative support, which are essential to ED operations, but differed from the core insights found in the bedside clinical care setting. Thus, 7 registered nurses, 5 attending physicians, 3 residents, and 2 physician assistants were the participants included in the data analysis. The average age of the participants included in the data analysis was 38.76 years, with a range from 24 to 59. The years of experience at their current workplace varied, with a mean of 7.74 years, ranging from 0.5 to 17 years. On a scale of 1 (not at all) to 5 (very much), their perceived familiarity with CAs was an average of 2.47 (moderate), and the reported stress level on a scale of 1 (not at all) to 5 (extremely stressed) was 3.47 (moderate). Participants were

divided into two groups, senior and junior, according to their tenure and self-reported roles in interviews, such as training new hires and participating in decision making. 11 participants were categorized as senior while 6 participants were classified as juniors. Appendix B provides details about the participants. For the senior group, the number of years of professional experience at the current workplace ranged from 5 to 18 years, with an average of approximately 10.7 years. The junior group reported between 0.5 and 4 years of experience, with an average of approximately 2.3 years.

The interview data from those 17 ED clinicians were analyzed collaboratively between the author and two research assistants, adopting the thematic analysis approach. Thematic analysis is a qualitative analysis technique that is useful to find patterns and themes meaningful to understand phenomena and underlying motives and meaning (Bowman et al., 2023; Braun & Clarke, 2006). Thematic analysis has been widely adopted in the literature of Human-Computer Interaction and related areas, as themes discovered from the analytic process inform design decisions of technology (Blandford et al., 2016). More particularly, prior studies that examined the existing and potential use of technology for healthcare utilized this analytic approach to analyze qualitative data (See Bowman et al., 2023 for review), which include the content of existing literature (e.g., S. Chancellor et al., 2019), online community posting (e.g., Tuli et al., 2018), and design workshop and interview data (Johansson et al., 2025; Vimpari et al., 2023), providing descriptions and interpretations on existing health-related behaviors and thoughts of target populations and making a set of implications for future design for better care services. Building on the capabilities of thematic analysis and considering that interview topics of my study can be reflected across multiple layers of their experiences at work, I selected this method, seeking a comprehensive understanding of descriptive behaviors based on participants' accounts and anecdotes shared during interviews, as well as uncovering latent meanings and potential opportunities for future CAs for social sharing of emotion.

Our coding and reviewing processes followed the practical guidelines suggested by Braun and Clarke (2012) and started with reviewing the transcripts to familiarize ourselves with the data. The coders then labeled 3 interview transcripts independently using the analysis software and gathered to discuss the coding process each took and the results. This initial round of coding and discussion aimed to establish shared coding standards among the team members and to identify emerging themes from the interview data. Team meetings particularly

emphasized discussing and reaching consensus on how to interpret the data and making explicit the assumptions drawn from participants' input. These efforts aimed to enhance the consistency and reliability of the coding process among coders. Additionally, the initial codes and themes were compared, combined, and refined using Miro, an online collaborative whiteboard platform. Labels or codes identified by individual coders were transferred from Atlas.ti and imported into Miro to facilitate grouping and more efficient revision of label names. Furthermore, using this digital board helped in creating structures among the codes. Based on the groups and hierarchy of codes identified during the discussions, a preliminary codebook was developed, which was used for the team review and to label the remaining transcripts independently. As we divided and conquered the coding of all the other interview data, regular team meetings were held to check on progress, discuss and adjust the codebook collaboratively as new themes and insights emerged during the independent coding, and resolve any confusions. Once the codebook was finalized, coding was updated accordingly, and the themes identified were synthesized and used as the primary basis to guide the reporting of results.

Chapter 6 Findings

6.1 How ED Clinicians Perform Social Sharing at Work

Most participants stated that they talk about what they experienced and felt about it at work with a colleague(s), but the extent and ways they social-share at work were diverse and selective. Broadly, I categorized the different types of social sharing mainly into two ways: a) informal and personal social sharing, and b) formal and professional social sharing.

6.1.1 Informal, Personal Chances for Social Sharing

Those who shared their social behavior at work described various forms of sharing in terms of the target person(s), locations, and timing. Some reported that they share their emotions and thoughts privately with a colleague. In such cases, the target is usually someone with the same role or a senior member available when they want to talk. It was also found that choosing the right setting and person for sharing depends on the purpose of sharing. When they want to vent and seek validation for their feelings, they talk to a colleague who is available at that moment (e.g., nurse to another nurse, attending to another attending). P11 shared an anecdote:

> I debriefed with my attending to just get some feedback because this was my first time really doing this [type of treatment]. And I was like, “Can we please talk about what happened during this shift?” And she's like, “Okay, perfect.”. And we went into a private hallway and she's like, “How do you think that went?” And then I just burst into tears. I think just talking about it was the first thing to assess that as horrible as I thought it was like, “Do you agree that actually was pretty stressful and bad?” And getting that validation was really important. And so I got that validation from her of, “No, that was a lot that was going on and you were doing your best. And that was very challenging.”

Individual social sharing also happens in various places. They talk about daily episodes and feelings with colleagues when they change beds for a new patient, in the elevator, or in the water cooler area. Some participants noted that their sharing at work is generally very brief due to the high number of patients waiting for care and the absence of clear breaks during their shifts. These circumstances also seem to lead to a lack of sharing experience:

> You don't have the time to actually share how you're feeling, so you are just going to respond with 'Good', or, maybe someone starts to share a lot and you don't have the time to give them [back] to respond to those things. I feel that's probably a barrier. Yes, we all work together. We're all very close, but if I see you at work and I'm checking in on you while I'm working and it's a busy night, I don't have time probably to listen to 15 minutes of rundown of how you're actually coping with what we just saw. (P3)

While private and individual sharing behaviors were observed, social sharing was also carried out in group contexts**.** Participants found moments for sharing when they had a hangout or social events with work friends, though they added that social events don't happen often because of a staggered work schedule. Compared to the social sharing during shift, hangouts and socials with colleagues were found to allow more time in a more relaxed circumstance.

Additionally, a few participants mentioned they communicate through messaging applications. For example, P11 noted that they have "so many group chats [with colleagues]" on WhatsApp, including "a very large group text for the entire group", and "a smaller group of friends that we're very close to". While they feel generally fine with talking about their experiences over those chats, psychological distance, the size of the chat, and their perceived levels of closeness and safety were found to affect the degree of social sharing of emotion, and they would feel more comfortable and vulnerable sharing their experiences in closer groups.

6.1.2 Formal Occasions for Social Sharing

While informal and personal interactions for social sharing were more prevalent, participants also shared about more formal and professional forms of social sharing behavior, including debriefing sessions and organizational programs for mental health. First, debriefing sessions in the ED units were found to be one of the opportunities for clinicians to share their clinical experiences with colleagues. Debriefing in the ED is a meeting where the care team discusses and reflects on specific cases. Similar to that of other healthcare domains, the purpose of carrying out debriefing is generally to discuss thought processes, decisions and actions they carried out and improve clinical performance for future events (Kessler et al., 2015). Interview participants mentioned they perform debriefing in multiple forms, primarily when the patient outcomes are adverse. The format and content of debriefing sessions vary greatly depending on their purposes and situations, and there seems to be no set procedure that clinicians follow. It

generally depends on who convenes the debriefing session or meeting, influencing what participants can share and how they do so.

One type of debriefing most frequently reported is bedside debriefing, typically conducted immediately following a clinically critical event such as a patient loss. Participants stated that not every critical event is necessarily followed by a debriefing, and the decision to hold a debriefing session generally rests with the attending physician who led the care team, unless prompted by other team members. Participants showed diverging sentiments about how effectively debriefing serves as a space for social sharing. On one hand, some of the participants thought debriefing sessions did not always work and decided not to be open at such group settings. It was mainly because without a specific format or protocol, the debriefing could turn out implicitly as accountability blame, as P1 revealed that:

> They want to sit down and kind of talk about things, which I felt were just very circular. We needed to get the iv. And I was like, yeah, we couldn't get it. And they're like, well, we needed to get it. And I was like, yep, okay. … We asked you to do this, why did you let the resident? And it got a little blamey for me.

Also, P3 said that debriefing did not seem effective when people do not get to have enough time to process what has happened and what they have felt about it, so they do not feel ready to share in such a setting especially when the meeting is held after a certain event. On the other hand, some participants said that they could opt to express their thoughts and emotions about the particular case that is being discussed in the debriefing meeting, perceiving shared feelings and perceptions about the shared experience. However, it was generally recognized that debriefing was not an optimal setting for sharing.

There was another type of debriefing, which is called a bereavement committee. A committee is held once a month or every two months at the management level, and compared to bedside debriefing, it is a larger group meeting where all the critical cases that happened in the last month or so are reviewed with the management and care teams. Clinicians who were involved in the critical cases are invited to the committee and can decide whether to attend. While most of the participants discussed bedside debriefing sessions, only one participant (P1) mentioned this type of debriefing opportunity as a part of the employee assistance program, although she has not attended a committee in a while.

Furthermore, there were also employee mental health and well-being support programs that can be used as avenues for social sharing. Some of the resources are not specific for ED clinicians but rather offered at the institutional level as part of hospital employee wellness promotion. Examples include a counseling program where employees including ED clinicians can meet and talk with a professional counselor and a mental health program run by psychiatry attendings and designated for residents.

Overall, I found that multiple opportunities were available for social sharing at different levels of the institution. Bedside debriefing was the most commonly discussed sharing experience among participants. In terms of the other formal types of social sharing of emotion, participants mentioned that they were aware of organizational resources through promotion via email, fliers, or brochures, but had not participated in them and "had not seen or known anyone who has ever used any of those services within our department." (P3). P12's notion also aligns with this observation:

> It's funny because just my emails are popping up in the corner [of my computer monitor in front of me] and I just got something about workplace mental health. I have referred people to it, but I haven't done it…. I've never asked "Oh, how was it? Was it helpful?" and all that. I know it exists.

6.1.3 Social Sharing Outside of Work

Among the participants who mentioned that they tend not to share at work, some of them talk about work with intimates such as friends and family outside of professional networks. Some of the target listeners they speak to included intimates such as family members or friends who also work in medicine but not at the same workplace. Otherwise, other participants prefer processing their emotions and thoughts by themselves rather than discussing them with others, by employing other stress coping and wellbeing strategies such as workouts, leisure activities, and relaxation.

6.2 Factors That Facilicate or Hinder Social Sharing

The findings above indicate that there are multiple opportunities and spaces for participants to discuss their emotions and emotional episodes with colleagues and management. However, participants did not see all of them as effective chances for social. Instead, they selected only some of the options available or used their own methods for engaging in social

sharing and improving well-being that they believed would better help them feel better and receive emotional and social support more safely. Some of the methods were used at work or outside of work hours. Several reasons for the selective participation in social sharing behaviors were also identified. Below, I describe the motives and benefits of social sharing that participants discovered, which influenced their sharing behaviors and patterns. Then, I illustrate the effects of individual, social, and organizational factors that shape one's willingness and forms of social sharing activities.

6.2.1 Motives and Benefits of Social Sharing Behavior

One of the reasons that encourages the social sharing of emotion at work is the validation they receive from coworkers about their thoughts and feelings. Coworkers share work routines, procedures, and specific events that happen at work. Even without providing detailed context, participants can easily share their feelings and thoughts about particular events. For the same reason, validation from colleagues tends to matter more than that from people outside of work, because they are aware that others are also experiencing or have experienced the same things. Having this perceived shared experience makes social sharing even more effective in helping with bonding and building relationships:

> I think that we've all had experiences, some of us similar experiences that we're all very open to talking about it and supporting each other.… especially [with] the group that I hired into… so we kind of built a bond. And so, I felt like we're a little bit more open to sharing our mental health experiences. (P5)

Another benefit participants seek from sharing behavior with others at work is obtaining informational support for managing negative work events. Specifically, listening to others sharing their prior experiences and receiving practical guidance were helpful for (re)evaluating an event along with associated emotions and thoughts. P11's experience of talking to a senior colleague to seek advice on a way to deal with an unfamiliar patient case indicates that the social sharing is not only of practical value but also emotionally validating of their stress and frustrations caused by such an event.

Moreover, participants express their emotions and thoughts with colleagues simply to vent and get it off their chest. Some types of venting appeared to be done by making jokes or brief (non-) verbal emotional expressions instead of talking through what they experienced.

Overall, these benefits align with the motives discussed in prior research on the social sharing of emotion (e.g., Duprez et al., 2015), and perceived benefits of social sharing at work, including receiving social support, are seen as key factors that promote ongoing engagement in social sharing with colleagues.

6.2.2 Roles and Positions

One of the main factors influencing various sharing behavior patterns is social expectations and awareness of those expectations. The social and professional roles of the sharer and the target listener were found to affect participants' willingness to share emotions and experiences at work. Participants discussed that they decide what to talk about with whom, considering their professional roles and positions they serve in the organization. For example, senior clinician's sharing patterns were determined by their social and professional standing. Attending physicians and senior nurses, overall, define themselves as supporter for juniors struggling or going through difficult situations and wanting the social sharing and support. Senior clinicians might initiate the social sharing but they are not the ones who speak about themselves, rather being the listeners and support providers:

> I mean if there's a really hard case you'll try to talk at and debrief, but it's really more about helping them honestly than it is about. Yeah, I don't sort of think to share my internal [thoughts and emotions], now certainly the residents can sometimes tell when you're stressed, but it wouldn't be unburdening myself on a resident. I don't do that. Sometimes, you talk about difficult cases with nurses that have been there a long time, but not as much. And, then of course not the students. I mean, you're sort of more in the role of trying to help them through it because it might be the first time they've been through it. (P9)

Similarly, senior providers in general were hesitant and careful about displaying their cognitive and emotional states, especially as vulnerable sides, to trainees and junior staff, because they were aware that their emotions and thoughts could have significant impacts on them. Experienced clinicians were aware of high expectations for them and social pressure to handle everything well (e.g., patient treatment) and didn't want junior staff to feel discouraged or overwhelmed by learning that there would still be difficult moments and questions for seniors (P1, P3, P9). While senior staff tended to be reserved with junior clinicians, they were found to confide in other senior colleagues who have worked together for a long time and understand the

challenges in their roles (P1, P9, P10). They indicated that it would be easy for them to just talk to one or two trusted colleagues about specific issues or feelings during work hours because they know that who is usually available when they need to talk to someone and they have a shared understanding that there are always some cases that they are not clear how to deal with those cases.

Professional and social roles were also important for junior clinicians when they consider being open and sharing with others at work. More specifically, junior clinicians felt comfortable sharing with their colleagues who started working at the same/similar time in general, but their attitudes towards sharing with senior staff and sharing through organizational settings were divergent. Some junior nurses and residents mentioned they felt comfortable developing friendships outside of work hours by hanging out and sharing honest feelings with colleagues. However, others expressed concerns about being judged or facing retaliation.

6.2.3 Job Mentality and Perceptions About Work-related Stress and Negative Emotions

Another set of factors that prevents interview participants from sharing their feelings and struggles with others is related to clinicians' mentality/stereotypes about their job and attitudes towards mental health and wellbeing. First, the idea that working at an ED is essentially a tough job appeared to be a major component of participants' work mentality, affecting their social sharing behaviors. Some participants said that they made commitments to working at the ED, which is known to be hard and expected to experience stressful and emotionally negative events as a part of their daily job, so work-related events that evoke stress and negative emotions are easy to share but normalized:

> I think there's so many, there are a lot of different layers to it. On the one hand, we almost, we talk about it so much that we almost minimize it in a way where it's like everybody's constantly talking about how stressed they are, how many things they have going on, how busy they feel. But we all talk about it so much that it feels like this is the norm, this is how it should be if you're doing your job like correctly (P11).

However, at the same time, other participants thought, "unfortunately, it's just kind of the cycle of taking care of patients (P1)" that they do not ask for help with dealing with stressful events or do not have time for it except for a few minutes of debriefing.

Also, several participants mentioned that they don't talk about their stress and related events at work. Because some events that lead to negative emotions have developed at the

organizational level so talking about them with colleagues wouldn't help resolve their negative feelings and related issues. This sentiment shows that some of the negative emotions they have are closely related to chronic stressors such as patient boarding, and they view that social sharing would not be helpful without management addressing the core issues related to negative events and emotions:

> I mean the biggest issue for us has been like we're boarding patients all the time and so in the beginning, [management] people used to feel bad for us and they used to try to deal with that, but it's such a chronic problem now that it's just expected that half of the ER will be full of patients that are admitted. And so it's no longer something to even talk about, even though it's still really stressful to us on a daily basis. It's just accepted on a larger scale now that this is the way it is and so it just kind of gets skipped over. (P1)

6.2.4 Perceptions Towards Institutional Support and Resources for Social Sharing

In addition to the sharing opportunities that individuals create, there were employee mental health and well-being support programs that can be used as avenues for social sharing. These are provided by the institution as part of hospital employee wellness promotion, and some of the resources are not specific to ED clinicians, for overall institution employees. Examples include a counseling program where an employee can meet and talk with a professional counselor and a mental health program run by psychiatry attendings and designated for residents.

Despite multiple resources available at various levels of the institution for ED clinicians' social sharing, only a few participants reported having used these resources. The other participants only mentioned that they are aware of them, but they have not utilized them. When asked about reasons they did not use those resources, participants provided several explanations. Additionally, one of the common responses was that they were not in such a bad emotional state that they required additional support. For example, P5 said:

> I know there's a ton that are offered [by the institution]. I was just handed some of those not too long ago. I do know that there are support and services that are offered to help with employment wellness and any other [resources]… I just felt like I didn't need it. Who knows? That might change, but I feel like I don't need it at this time.

Some participants also discussed logistical constraints such as time commitments and the administrative burden of using organizational resources, which they saw as reasons for very little engagement with those resources. They felt they would need to learn how to access those

resources, including “figure[ing] out how the system works and pretty much who, what's the right place to go to find the resources, and once you're there, who do you have to talk to”, which was seen as a significant commitment compared to the perceived benefits of the resources, as P12 noted “it just seems like more hassle than it's worth”. The time commitment they would need to make after a long shift or an extra commute to attend, for example, institutional programs outside their work hours, was a challenge identified as well (P1). Overall, the higher cost than the utility they expect to be able to receive from the organizational resources leads the participants to dismiss available programs and channels for sharing.

6.3 Potential Use of CAs for Social Sharing

Finally, participants shared their perspectives on implementing CAs to conduct social sharing and cope with negative events. The following describes potential use cases where the CA use leads to benefits, and concerns they perceived regarding the CA adoption.

6.3.1 Opportunities for CA utilization

When it comes to emotional sharing and disclosure purposes, participants believed there are advantages to using CAs as a listener. One of the explanations is that they perceived a greater sense of comfort in talking with CAs than with a colleague. The lack of judgment or social stigma could encourage individuals to be more open about their vulnerabilities with CAs. For example, P3 shared a memory about a new graduate nurse they envisioned could use a CA for support:

> At the debriefing that we had the other day, the new grad nurse visibly did not look like she had been coping very well and was very tearful, rightfully. There’s no judgment about that by any means. But she didn't share any words or thoughts or feelings during that meeting, which is totally fair as well. … Would she have been more open in a form that she feels like she's not going to be judged or looked down upon or whatever? Certainly, I would think that there would be some sort of opportunity for an AI, chatbot.

Moreover, participants expected benefits from greater accessibility of AI-based mental health resources and the conversational channels/partners being available 24/7. This around-the-clock access was considered useful when one seeks support and guidance outside of regular hours, decreasing the effort of finding who is available at the time and meeting the desire for

social sharing. No need for psychologically burdening a human listener was pointed out as well, as an anticipated benefit of utilizing CAs. For example, P15 said*:*

> You can't vent all the time, but there are those of us who do … and people eventually get kind of sick of them venting about everything. So, I could see it [CA] being useful for that in that it's always on, always listening.

P7 shared a similar sentiment as well:

> [Using a CA is] unlikely to receive much moral distress. Like, [when you want to say to your friends] 'Oh, I saw this horrible thing today', you may be like, 'Do your friends really want to know?'. You saw somebody who went through this horrible thing. It hurts your friends a little and [they would] be like, 'Oh my gosh, you went through that'. But it also helps you. But it kind of makes them be like, 'Oh, that's too bad. [But] I was just having a good day today. I was just going to go for a bike ride, and now you told me about this horrible thing you saw, gosh.' Like, isn't it a way to sort of put the ick on them, right? I don't have to burden my friends with ick [when using CAs].

Regarding more specific roles that CAs could play, participants discussed CAs serving as proactive conversational partners, resource providers, and/or mediators. For instance, P9 suggested that a CA could take the initiative to check on clinicians and provide a space to talk about before they seek help. This idea was borrowed from an automatic alert system in conjunction with a peer support group run at another institution they learned about recently:

> One of the things they have is some automatic triggers that are set up. So if there's a particular case, for example, the death of a patient in the emergency department, the electronic medical record system will notify the head of the peer support group who will then in a few days reach out [to those who got involved in the case]. So, instead of waiting for the provider to say, "Hey, I'm really struggling", it's someone else emailing and say, "Hey, I heard you had a really bad case. Would you like to find a time to talk about?" So, it's like it's reaching out as opposed to waiting for the provider to reach out for help, and this type of peer support system has gone way up. If people are asked, "Would you like to share about this case?", people say "Yes", but if you wait for people to say, "I need help", they're going to say "No, I'm okay. I got this" if that makes sense.

Suggestions for a chatbot to alert the user with messages, such as "Why don't you take 5 minutes? Why don't you go walk away and breathe?", "If you need me for an emergency, I am

here", and "Check your body. Make sure you hydrate today." on "the day after a rough shift when shoulders are really tight and face is sore" highlight the pre-emptive actions that CAs could demonstrate, as P16 noted.

Additionally, identifying users' problems and the necessary solutions based on their input, and connecting them to appropriate resources or contacts, appeared to be a key part of the potential role of CA participants anticipated. P3 suggested that:

> [After] at least the bare minimum for that kind of screening process or filtering, maybe even it can offer avenues at the end of whatever sort of conversation comes out and then filters through that. And then if more personal work is deemed necessary, maybe it automatically takes this information to whatever source, and they can schedule a follow-up appointment through that.

At the same time, a few participants discussed the potential strengths of CAs directly providing specific therapeutic treatments like cognitive behavioral therapy. P9 shared that "the AI could be programmed to parse through what someone shared with it. … it could give good advice and all probably good evidence-based cognitive behavioral therapy and/or trauma-informed care." Furthermore, an additional note from P8 highlighted the importance of seeking user evaluation and feedback on the usefulness of those resources recommended by the CA, assuming any possibility for extra support:

> I think if it provided you resources as it directs you to a specific point, there should always be followed up with "Do you need additional information?". The system would have to evaluate that [the resources] and find out if the person is satisfied with the specific resources or needs additional help.

6.3.2 Concerns About Adopting CAs

Despite several benefits participants discussed from utilizing CAs for social sharing and wellbeing, many participants expressed concerns about CAs being implemented in their work setting. Some of the challenges brought up by participants were in consideration of their current work circumstances and characteristics. Since ED clinicians work in the acute setting which operates at a fast pace, they expected that it would be hard to make time to talk to CAs. This issue about time constraints was more prominent when they considered using text-based CAs. In addition, a few participants predicted that voice interactions would be more time-efficient and better suited for busy individuals who multitask with their hands full. Conversely, they also

expressed privacy concerns when imagining CAs operating in the vocal modality. Since ED clinicians typically work within a group of other clinicians and are surrounded by patients, patient's families, and colleagues, they would prefer not to speak about patient case-related or private and personal topics with CAs:

> If you think of it as text-based, you can't imagine you are typing on your phone when you are really busy while delivering the case in front of you. And also when you are surrounded by multiple people, it might be hard for you to think about speaking out what you need to. (P10)

Moreover, privacy concerns and potential risks associated with it were one of the concerns discussed often in the interviews. Participants worried about the possibility of their input shared with CAs being monitored and stored, stating that they would not know how their data would be managed and used. If the institution could track employees' activities and information within CAs, including personal matters such as emotions and mental health issues, they did not want to use CAs. For one reason, participants talked about potential job-related risks, including fear of retaliation, issues with credential or licensure procedures, and social judgment. In P1's responses to the potential barriers they could imagine to utilizing CAs, they said that:

> I think people's biggest concern is just whether or not that would be used against them. We're very hesitant to think that whatever was said in this would somehow come back against them if they come. And I'm not worried about that at all, but that is the larger fear … there is a little bit of that mentality that still exists that there will be retaliation against you…. I think that unfortunately we have seen people get let go for easy things and I say it to my husband all the time, if you wanted to get rid of someone or fire someone, there's no way I can do my job entirely as a nurse.

P6 also elaborated that providers are required to report whether they have utilized mental health services when completing and renewing their license, and expressed that:

> I don't trust it [CA]. I don't know where that chat is going, who's on the other end, and who has access to that code… When I fill out my credentialing paperwork and my licensure paperwork,… one of the things that I put there is "Are you on any medications?", "Have you done any therapy?". If I'm using a tool to increase my

wellness and my mental resiliency and report it, you might look at that with a jaundiced view and restrict my privileges or my license.

Additionally, P11 noted that they use a diary app that assists in reconstructing and reappraising cognitive distortions, but the activity of talking on/with a chatbot about their experiences and emotions is considered "so personal and so vulnerable" with additional comments that:

> I wouldn't want it to be connected at all to the computer that I'm doing work on because [it] feels so private. It's like I'm writing in my diary, so I would not want it to be on the same computer [as the work computer] and I wouldn't want to be writing it out or typing it out in front of other colleagues that I'm working next to.

Furthermore, incorporating a CA was considered an increase in technical and administrative burdens. This would depend on how a CA is integrated into the work practices and hospital system, and how it intervenes. Participants worried that a new technology could give them an additional burden to learn something new, while they have already used several electronic devices and information systems for their clinical and administrative practices (P10). Additionally, several participants noted that utilizing a CA that does not fit into established clinical workflows and practices may create inconvenience, as it may require users to offer detailed explanations regarding their experiences to the agent.

Besides, there was general skepticism about the effectiveness of CA technology and features for potentially replacing human conversational partners. A few participants were negative about employing CAs as a conversational partner. Some of them believed that although CAs can function as a platform for resources with respect to mental health and sharing behaviors at work, there are components of human interactions that CAs cannot replace or that CAs may not be the most effective for, which underscores the need for human interaction ultimately. P8 shared an opinion that a future CA "could provide resources" for wellbeing and social sharing but they considered it "an introduction" to further assistance which "all needs to, if needed, end with the human-to-human interaction". P17 shared similar ideas that:

> ChatGPT... and also Snapchat gives really human-like responses … it is generating different sayings that could help me feel better, but it's not the same as like a human spot, a human with professional training. … I'll call a friend just when I need someone, I need

> an ear… I feel like with chatbots, there's not necessarily emotion behind the scenes because it is AI as opposed to a human mind.

P16's notion also suggests that there are emotional, cognitive abilities of a human being that CAs could not emulate:

> You can definitely tell [in the human-human interaction] that if they [who come to you to talk] want reassurance, you can tell that that's what they're looking for. Like, there's a human intuition that I think a machine would have a very hard time grasping where it is now. Like I said, things could be wildly different in the future, and I don't pretend, [but] it wouldn't really understand where I was coming from.

Instead of taking the role of the social companion, CAs were expected to serve as a tool for improving work efficiency, such as charting, as P11 noted, "I don't know if I would want one to de-stress about a shit. I think having that person-to-person conversation is probably more helpful. But if there were a chatbot that could write my notes, that would be incredible."

Chapter 7 Discussion

7.1 Summary of Findings

The interview findings revealed that participants who work in an ED frequently engage in social sharing at work, while some of them do not prefer to. The extent and modalities of social sharing were found to vary. Brief, personal chats with colleagues and debriefing sessions at the team or organizational level are some examples of the formal and informal sharing behaviors during work hours. Among various motives and perceived benefits from the social sharing are obtaining validation about their feelings and thoughts, seeking guidance to resolve negative thoughts and issues, and venting. Professional and social positions in the workplace and attitudes towards their job, work environments and organizational support also influenced the intention to initiate the social sharing behavior with colleagues.

Participants also discussed design opportunities of CAs for supporting social sharing at the workplace. They shared that CAs can offer a judgment-free space that encourages clinicians to openly share their feelings and vulnerabilities without fear of stigma. Their 24/7 accessibility ensures that support is available at any time, reducing dependence on human listeners and making it easier to seek help outside regular hours. CAs also have the potential to engage proactively, reaching out to clinicians after stressful events rather than waiting for them to initiate contact. By identifying users' needs based on interaction within the agent system, CAs can connect clinicians to appropriate resources or help schedule follow-up appointments, streamlining the process of getting additional support. The integration of evidence-based therapeutic interventions, such as cognitive behavioral therapy or trauma-informed care, was one of the potential areas that allow CAs to provide targeted mental health and wellbeing assistance. Finally, incorporating user feedback mechanisms enables CAs to evaluate the effectiveness of their recommendations and follow up to ensure that clinicians' ongoing needs are met.

Even though the benefits of utilizing CAs for social sharing and emotional support were recognized, participants also expressed several concerns. They talked about practical barriers like time constraints, especially in fast-paced ED settings. Additionally, privacy issues, including

fears about data security, potential job-related risks, and the vulnerability of sharing sensitive information, were pointed out as challenges. Some worried about the extra administrative and technical burden of implementing new technology, and many doubted that CAs could truly replace the emotional intuition and support of human interactions.

7.2 Design and Organizational Implications

Building on the findings illustrated above, I discuss implications of implementing CAs in for employee's social sharing of emotion and wellbeing promotion at work.

7.2.1 Contextual and Cultural Awareness and Adaptability of CAs

Participants generally viewed conversational agents (CAs) as useful, mainly serving as listeners and supplementary tools or intermediaries, particularly for enhanced resource provision, screening, and check-ins, while also noting the importance of integrating human interaction into CA use. These perspectives are primarily consistent with previous research that highlighted potential for AI-supported CAs for mental health and wellbeing. For instance, participants expected a relatively high degree of comfort when communicating with CAs without social judgment. This not only mirrors findings from various studies suggesting that CAs may serve as a great companion, checking in and listening to the user who needs someone to talk to (e.g., Concannon et al., 2023) but also extends the body of knowledge that shows that individuals tend to feel comfortable talking with agents and disclose more personal information to AI agents than to humans (e.g., Ho et al., 2018; Lee et al., 2020a). There is also a stream of discussions in the literature about deploying CAs as an intermediary between clients and healthcare professionals, or as a screening tool prior to clinical consultations. By facilitating greater disclosure and utilizing AI-supported, efficient screening processes, both clinicians and patients may experience benefits related to addressing issues such as limited availability and extended waiting periods (e.g., Habicht et al., 2024; Lee et al., 2020b; Samiee et al., 2025). Although these suggestions are mainly provided in the context of personal or clinical use settings, applying the general strengths of CAs' emotional and communicative abilities to the workplace CA for social sharing and wellbeing seems promising.

However, an equally critical aspect when extending CA's capabilities is its ability to remain contextually aware of the workplace. Participants with prior experience using CAs often expressed dissatisfaction with systems that delivered responses that failed to reflect their

individual circumstances and intentions. This mismatch not only led to frustration but also required them to expend additional effort explaining detailed context before receiving meaningful support. In fast-paced work environments such as the ED, they emphasized, they viewed that lengthy explanations in the interaction with agents are impractical. These perspectives underscore the importance of designing CAs that go beyond enhanced communication abilities (Ashktorab et al., 2019; Følstad et al., 2024) to also integrate organizational cultures, policies, workflows, and situational contexts (Pendse et al., 2024). Considering that one reason participants feel comfortable sharing experiences with colleagues and perceive their validation to be more valuable and authentic, the presence of shared context is key: coworkers already understand the situations being discussed. Similarly, suggestions for preemptive check-in services highlight the need for workplace CAs to maintain situational awareness. When CAs can monitor and understand ongoing events, including clinical treatments for a particular patient case, employees are freed to focus on articulating their feelings and seeking support rather than teaching the agent about their experiences. Such contextual sensitivity also enables the timely delivery of emotional, informational, and instrumental support to help address negative emotions and related challenges in clinical activities. At the same time, however, CAs designed to attune to real-time organizational events must be carefully developed to comply with established patient rights, ethical standards, and medical regulations such as HIPAA.

In addition, employees' attitudes towards culture, social norms, and job positions should also be accounted for in designing CAs for workplace wellbeing. The interview findings suggest that individual and social perceptions towards their work and work environments play a significant role in initiating social sharing with colleagues, underscoring that support seeking and social sharing are shaped by both individual preferences and organizational and cultural conditions. For example, some interviewees stated that they do not talk much about their stress and stressful events because it is a part of their job, happening everyday. These comments can be interpreted as their acceptance of stress, but at the same time, they indicate that more tailored methods for evaluating their level of stress and needs for support should be integrated into the potential CA system for workplace wellbeing. Even individuals with different responsibilities and roles may need to take distinctive strategies for sharing their stressful experiences with others and relieving negative emotional states at work. For CAs to meaningfully support

constructive social sharing and wellbeing, CAs should provide opportunities for talking about tough feelings and experiences in a way that is adaptive to the individual needs and organizational climates. In summary, an ideal conversational AI system for employees' social sharing and wellbeing purposes will require enhanced emotional and social communication abilities as well as proficiency in suggesting sharing activities and providing supportive feedback and resources tuned to the organizational contexts.

7.2.2 Trust-Building for the CA Implementation and Wide Adoption

In addition to offering a CA with valuable features and functionality, it will also be essential to promote trust and positive perceptions about organizational efforts and support for employee wellbeing to ensure smooth and widespread adoption of such a technology. Although technology-assisted interventions for workplace well-being are often promoted as ways to address issues of accessibility and engagement, and CAs are one of the promising strategies, employees' superficial participation and low retention rates remain a persistent challenge, indicating that the implementation of CA-based interventions must be deliberately planned for promoting employees' wider adoption. One of the considerations that should be incorporated is increasing the visibility and perceived efficacy of such interventions. Interviewees felt that organizational programs appeared ineffective relative to the (perceived) burden those might have caused, like lengthy logistics, and were not widely utilized. One way to address this is by establishing a good use case and spreading the word widely at the organizational level, which will be helpful for employees to *'learn by example'* about the efficacy. As the social influence model of technology adoption (Vannoy & Palvia, 2010) and the technology acceptance model (Venkatesh & Morris, 2000) suggest, social influence, such as finding out colleagues in their work unit employing suggestions from such a CA for emotional relief and/or venting, may help workers consider starting to use it.

Relatedly, employees' concerns about privacy and trust issues regarding utilizing intelligent agents should also be discussed and taken into account. Participants questioned the transparency and clarity about how data would be stored, who would have access, and whether their anonymity could be guaranteed. These questions come from not only general concerns about AI-assisted tools (e.g., knowing that their input might be used to improve AI performance) but also from the level of trust established from their observations on existing organizational endeavors in employee wellbeing. For instance, one participant shared a positive attitude towards

the organization's handling of employee data, referring to their observations that they never saw a case where responses to the annual employee survey regarding organizational culture, job stress, and support were used for retaliation. On the other hand, a few participants stated that they would not feel assured about the organizational intention of deploying such technology, whether it is genuine to support employees or for other purposes.

Taken together, implementing CAs for workplace well-being requires more than just adding new technology or interventions. Successful adoption depends on carefully considering the usefulness employees perceive and implementing transparency- and trust-building strategies related to employee data handling and institutional support for mental health and well-being. By addressing these factors, CAs will serve as meaningful and sustainable resources for employees' well-being at work.

7.3 Contributions

By examining practices of social sharing of emotion in the workplace and offering design implications for CAs that support employee mental health and well-being, this dissertation makes several contributions. First, this study extends the literature on organizational interventions for occupational well-being and on the design of social CAs. Prior research has highlighted a variety of strategies for workplace well-being, including technology-assisted programs such as mobile apps and interactive web modules (e.g., Bartlett et al., 2022). Although CAs have recently been considered intervention strategies, empirical research on their role in workplace well-being remains nascent. In particular, little is known about how elements of work environments, employee behaviors, and organizational routines can inform the effective design and integration of CAs in ways that align with organizational culture and context. Similarly, while research on CAs for social support has emphasized their potential as companions and resource providers across different settings, limited attention has been given to their application in organizational contexts. By suggesting design and deployment considerations for workplace well-being, this dissertation contributes to understanding how organizations can adopt CAs, and what contextual factors, such as timing, location, and organizational culture, should guide their use.

Second, this dissertation advances the literature on social sharing of emotion by providing qualitative evidence of how employees engage in such practices at work, and how technologies like CAs may facilitate these processes. Most prior studies have examined social

sharing in everyday life or experimental settings, with only a few addressing workplace contexts. While existing research has illuminated the cognitive and interpersonal processes involved in emotion sharing and their outcomes (e.g., Butler, 2015; Reynolds-Kueny & Shoss, 2021), little is known about the motivations to share—or withhold—emotions in highly stressful, regulated work environments, and how these choices affect employee well-being. This study addressed the gap by investigating social sharing of emotion at emergency departments (EDs), where healthcare providers face uniquely intense and stressful work conditions. ED professionals represent one of the occupational groups most vulnerable to stress and mental health challenges (Nigam et al., 2023), with particularly high levels of strain documented among this subgroup (Adriaenssens et al., 2015; Jyothindran et al., 2021; Schooley et al., 2016). Through individual interviews with ED healthcare workers, this dissertation identifies the social, cultural, and organizational dynamics that shape emotion-sharing behaviors in this context. These insights illustrate how social sharing contributes to workplace well-being and offer design directions for technologies that can ethically and effectively support such practices in professional environments.

7.4 Limitations and Future Research Directions

Despite several contributions, this dissertation is not without limitations. First, while the findings offer rich insights into the social sharing of emotion at work and suggest ways to integrate CAs into the workplace, the study is exploratory, and evaluations of the potential design and implementation ideas are required. Developing a prototype of a CA that incorporates the suggestions from this dissertation and assessing its effectiveness, user satisfaction, and alignment with stakeholder needs will be essential for advancing the design concepts.

In addition, while social sharing of emotion takes many forms and involves a wide range of emotions and topics, this study focused only on sharing negative and stressful events at work. Previous research shows that sharing positive experiences is as common as sharing negative ones (e.g., Rimé et al., 2020), and reflecting on positive work experiences can improve individuals' mood, wellbeing, and social relationships (e.g., Ilies et al., 2024 for a review). Understanding how workers share positive events, such as capitalization (e.g., Gable et al., 2004; Langston, 1994), and identifying specific functions that CAs can support, are important areas for future research.

Furthermore, comparing and identifying specific patterns of employee sharing behavior and needs for CAs across different work settings will be valuable. The research context of this dissertation was an ED, which is understood as a primarily team-based, fast-paced, and stressful workplace. Although there were some contextual constraints, I ncluding time and personal preferences that influenced sharing behavior, most participants shared with colleagues at their workplace. Employees in work environments that emphasize high independence and siloed processes may have different attitudes toward social interaction with coworkers and CAs and seek different types of support.

7.5 Conclusion

This dissertation examines the potential role of CAs as organizational support for improving employee mental health and well-being. With the growing prevalence of occupational stress, burnout, and anxiety across industries, promoting employee mental well-being has become a critical priority for organizations. Traditional interventions like employee assistance programs and wellness initiatives often face challenges such as social stigma, low engagement rates, and failure to address workplace-specific stressors. Emerging digital interventions offer an alternative approach, although concerns exist about privacy and the fragmentation of applications. CAs present a promising solution, leveraging artificial intelligence to enable natural language interactions with advantages such as 24/7 availability, personalization, and scalability. While prior research has highlighted the potential of CAs in mental healthcare domains, further research is needed to understand their applications in workplace settings with unique relational dynamics, structures, and cultures. This study takes a qualitative approach to examine how ED clinicians engage in social sharing of emotion—discussing work events, thoughts, and feelings with others to seek and receive social support. Engaging in emotional sharing offers opportunities to better understand and reframe their emotional experiences and to strengthen relationships with listeners. By exploring the strengths, challenges, and perceptions related to social sharing among ED clinicians, this research informs the potential design opportunities and organizational implications of CAs that effectively support workplace wellbeing.

Appendices

Appendix A: Scenarios Used for CA Design Idea Brainstorming During the Interview

1. You have been tending to a patient that is working towards recovery after surgery. The recovery process is going well with only a few small complications. Although you are properly following all procedures, the patient's family is trying to argue with you about how to properly care for the patient. They constantly keep trying to correct you with what they think you should be doing.
2. You are working the night shift and have been tending to a trauma victim from a motor vehicle collision. The patient's condition is poor, and you have been working with them for a few hours.
3. You are working with a disgruntled patient that does not like being touched. You have to take the patient's vitals, but they are resisting. While trying to keep you away, the patient hits you on the arm.
4. You and a colleague are tending to a patient suffering from seizures in the patient's room and realize you disagree on how to properly help the patient.

Appendix B: Participant Information

Appendix Table B.1 below provides an overview of study participants who were included in the data analysis.

Appendix Table B.1
Information of Participants

Number	Title	Work Experience Level	Prior experience with CA	Familiarity with CA: 1 (not at all) to 5 (very much)	Stress Level: 1 (not stressed at all) to 5 (extremely stressed)
P1	Registered nurse	Senior	Yes	4	3
P2	Registered nurse	Junior	Yes	4	3
P3	Registered nurse	Senior	No	1	3
P4	Registered nurse	Senior	No	1	5
P5	Registered nurse	Junior	Yes	2	4
P6	Attending physician	Senior	No	3	2
P7	Attending physician	Senior	Yes	5	3
P8	Registered nurse	Senior	No	1	4
P9	Attending physician	Senior	Yes	3	4
P10	Attending physician	Senior	No	1	4
P11	Resident	Senior	Yes	4	4
P12	Attending physician	Senior	No	2	4
P13	Registered nurse	Junior	No	1	3
P14	Resident	Junior	Not sure	1	4
P15	Resident	Junior	Yes	5	4
P16	Physician assistant	Senior	No	2	3
P17	Physician assistant	Senior	No	1	3

Appendix C: Informed Consent Form for Study Participation

Please read the following carefully and sign at the bottom of the page.

Study Title: Designing an AI-augmented communication system to facilitate emotion sharing of employees at work

Research Team at the University of Michigan School of Information:
- Principal Investigator: Sangmi Kim, Ph.D. Candidate
- Faculty Advisors: Lionel Robert, Ph.D. and Sun Young Park, Ph.D.
- Research Assistants: Emma West, Masters' Student and Sara Chae, Undergraduate Student

Thank you for signing up for this interview and for taking your time. Since it is voluntary for you to participate, this form contains information that will help you decide whether to join this study. Please take your time to read the following carefully. You can ask the research team any questions you may have at any point in time. If you decide to participate in the study, please be sure that you understand what this study is about and sign this form before you start study-related activities.

Brief Introduction to This Study: This study is designed to understand what emotions people interact with their coworkers at work and how they do so and explore the potential role of conversational agents that promote emotional interaction and mental health of workers at workplaces. The study consists of individual interviews. Specifically, in an interview with you, you will be asked about how you share your emotional work experiences and feelings towards them at the workplace. Also, we will ask your opinions about using a chatbot for emotion sharing. The interview will take approximately 45 minutes to an hour. If necessary, follow-up interviews and observations may be requested and conducted to better understand your responses.

Data Collection and Analysis: During the study, we will collect any kind of data only upon your agreement. Data collected from this study includes your responses to interview questions. For the purposes of transcribing and reviewing an interview with you, we will ask your approval for recording your participation and the recording will begin only upon your agreement. To protect the confidentiality of your records, all the data collected from you will be stored in a secure place and be anonymized by not including any information that could both directly and indirectly identify you. Although we will keep your research data for possible future research and publication, access to your research data will be limited only for data analysis and publication purposes. It is possible that other people on our research team (e.g. student research assistants) and IRB staff managing research project ethics may need to see the information we

collect from you. These people work for the University of Michigan and have the appropriate training to make sure the research is done safely and properly.

Potential Benefits and Risks of This Study: This study will help our research team and other researchers better understand how to improve employees' mental health and wellbeing in workplaces. Although we take all reasonable measures to protect your confidentiality and anonymity and believe that the risks of participating in this study are no greater than those experienced during daily social interactions, we advise caution when sharing personal experiences or sensitive information that could potentially impact your reputation or employability. Please note that study involvement is voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may refuse to participate at any time or skip any questions/ procedures that may make you feel uncomfortable, with no penalty.

You will receive a $70 gift card for your participation in this study, and you will still be eligible to receive the compensation even if you decide to withdraw before the interview is completed. However, the data collected until the point of withdrawal will still be stored and analyzed.

Please sign below if you agree to be in the study. Be sure that you understand what you are being asked to do in this study before you sign. You may contact the researcher Sangmi Kim (e-mail: sangmik@umich.edu) if you have any questions about this study. The University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board has determined that this research is exempt from IRB oversight (HUM00230925).

Last Name: _____

First Name: _____

By signing below, I confirm that:

- o I understand what this study is about. I agree to participate in the study.
- o I don't agree to participate in the study.

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