



Emotional Contagion Consequences During the COVID-19 Pandemic: A Qualitative Study in Iran

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ABSTRACT

Emotional contagion (EC) occurs when one person's moods and emotions influence others' feelings. This study aims to understand employees' lived experiences regarding EC and its consequences in Iran during the pandemic. This study used a phenomenological framework to elicit employees' experiences. Forty interviews with Iranian employees in 40 public organizations were conducted. Purposive sampling was used to identify the participants. The unearthed consequences were categorized into seven themes: mental disorders, negative emotions, negative physiological changes, job burnout, communication apprehension, venting at the workplace, and work-family spillover. Although several studies have considered the role of EC in the workplace, the consequences of EC during the COVID-19 pandemic in organizations have not yet been studied. Moreover, the findings illustrated that EC during the COVID-19 pandemic has dire consequences, which are not only confined to the individual sphere of employees but also permeate organizations, clients, and even families.

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1. Introduction

The COVID-19 pandemic has plagued almost the entire world as a global crisis. In Iran, from the 3rd of January 2020 to the 23rd of September 2022, there have been 7,545,351 confirmed cases of COVID-19, with 144,358 deaths, as reported by the World Health Organization (WHO, 2022). The shocking statistics of deaths in Iran due to this virus have undeniably affected the performance of public sector employees. Iran is a government-oriented country with approximately 2,379,000 employees in the public sector (Presidential Information Site, 2022). In this country, public organizations play a pivotal role in offering public services such as health and education. Therefore, the high performance of public sector employees can help their effectiveness in controlling and preventing this virus. The COVID-19 outbreak has led to behavioral and emotional impacts on societies (Pedrosa et al., 2020), some of which have occurred in organizations. Research has shown that during a crisis (e.g., the COVID-19 pandemic), people are more prone to EC (Steinert, 2021). The current COVID-19 pandemic is an emotionally demanding, and people are inclined to express and share their emotions (Steinert, 2021), specifically in organizations. Several studies have shown that some emotions, including fear (Abd-Ellatif et al., 2021), stress (Harker et al., 2022), and anxiety (Morgan et al., 2022), are likely to be contagious (Hatfield et al., 1993) and spread throughout workgroups and organizations, thereby adversely affecting organizational performance and employee work-related attitudes (Rothbard & Wilk, 2011). EC occurs when the moods or emotions of one person are transferred to another (Barsade et al., 2018), which causes conscious and unconscious co-occurrence of emotions or processes by which a person or group impacts the behavior or emotions of another person or group (Levy & Nail, 1993; Schoenewolf, 1990). EC is an important phenomenon in organizational behavior literature that affects workplace and employee behaviors (Barsade et al., 2018; Hashim et al., 2008; Hatfield et al., 2018; Johnson, 2008; Petitta et al., 2021; Vijayalakshmi & Bhattacharyya, 2012). Employees generally do not hide their moods and affective dispositions; hence, emotions are indispensable to how people interact with their surroundings (Barsade, 2002).

Some evidence shows that emotions in organizations can have a positive impact (Barsade, 2002; Sahu & Srivastava, 2017); however, during crises, emotions (such as fear and anxiety) are mostly negative, which may lead to negative emotional climates and affect employee behavior. Affective events theory (AET) explains how emotions and mood affect job satisfaction and performance. According to this theory, emotions are pivotal in how co-workers react to poor performers (Taggar & Neubert, 2004). Emotions are more influential than both attributions and expectancies in envisaging behavioral intentions toward the poor performance of team members at work. More broadly, they can disseminate and impact others' emotions in teams, causing poor performance through contagion (Taggar & Neubert, 2004).

The contributions of this study are threefold. From one perspective, the studies on the consequences of EC in the workplace are sparse and often quantitative (Aydemir, 2016; Barsade, 2002; Johnson, 2008; Petitta et al., 2021; Ustrov et al., 2016). While quantitative research cannot provide a profound understanding of a situation, exploratory and qualitative methods are more likely to provide a solid foundation to unearth sparsely explored phenomena. In this regard, qualitative studies on EC consequences in organizations are scarce. From another perspective, during the COVID-19 pandemic, the level and intensity of negative emotions and their contagion among employees peaked. Nevertheless, research on the consequences of EC during the COVID-19 pandemic remains in its infancy. Last but not least, while the crucial role of public service offerings via public organizations is undeniable, researchers have rarely considered the employees of this context in the research on EC.

One issue that deserves immediate attention is that the dissemination and sharing of information and emotions during a pandemic can worsen dysphoric mental conditions. Therefore, while medical and public health professionals are trying to contain the spread of the pandemic, managers must manage the spread of negative emotions in the workplace and their consequences. Although several recent studies performed during the COVID-19 pandemic reported various consequences such as extreme fear, loneliness, and limited degrees of freedom (Brooks et al., 2020; Li et al., 2020), understanding the lived experience of employees during the COVID-19 pandemic can help to better understand the consequences of the spread of negative emotions in the workplace and provide a more complete picture.

This study aims to understand employees' lived experience regarding EC and its consequences in Iran during the pandemic by answering the main question of the consequences of EC during the COVID-19 pandemic.

This article first reviews the literature, introduces the research method, and presents theoretical and practical implications.

2. Literature Review

2.1 Emotion in the Workplace

Emotions have been considered an important topic in organizational research (Elfenbein, 2023; Frandsen & Morsing, 2022; Herrando et al., 2022; Hornung & Smolnik, 2022; Klok et al., n.d.; Taylor et al., 2022), and recent research on employee's experience in the public sector has shown renewed interest in the topic (H. Lee, 2021; Molina & O'Shea, 2020; W. Zhang et al., 2020).

People spend a great deal of their time doing activities in social settings. An employee's social environment affects their cognition and behavior. Workplaces are one of the largest social environments in which people work and spend most of their daily time achieving organizational goals. In this regard, they are constantly in contact and interacting. Drawing on social information processing theory, research has demonstrated that the social environment of employees affects not only their cognitions but also their behaviors (Robinson & O'Leary-Kelly, 1998; Salancik & Pfeffer, 1978). Similarly, organizational network theorists (e.g., Krackhardt and Brass, 1994) have highlighted the essence of cognitive components pertaining to the interrelationships in organizational networks (Barsade, 2002). Based on the main premise of cognitive emotion theory (Lazarus & Folkman, 1984), cognitive facets of interactions can initiate all types of emotions, either automatic or volitional.

At the outset, it is necessary to define the term "emotion." Emotions function as signaling mechanisms for living organisms to adapt their behaviors, thereby tailoring environmental conditions (Schwarz & Clore, 1983). Emotions play an important role in the workplace because interactions with supervisors, co-workers, and customers/clients may lead to emotional experiences that profoundly affect subsequent employee behaviors. Grandey (2000) noted that emotional events in the workplace directly impact employees' emotions. For example, if an organization's client behaves well and has a positive and desirable interaction with an employee, it creates positive and pleasant emotions in the employee, and vice versa. Moreover, Affective Events Theory (AET) asserts that emotional states lie at the heart of attitude development and organizational employee behavior.

Furthermore, based on AET, everyday events affect our thoughts regarding jobs, colleagues, and employers. Hence, AET underscores the importance of emotions and the events that generate them for managers and warns them about ignoring them, even if they seem negligible. Some negative emotions may be engendered as a result of inappropriate communication with supervisors, subordinates, peers, and customers both inside and outside the organizational setting (Ashkanasy & Daus, 2002).

At workplaces, both behavioral and attitudinal emotional state results undeniably affect individuals, groups, and societies. From one side of the dichotomy, positive emotions assist employees in reaching favorable outcomes such as job enrichment, job achievement, and better social contexts (Staw et al., 1994). On the other side, negative emotions, including anger, fear, sadness, hostility, stress, and guilt, contribute to workplace deviance (K. Lee & Allen, 2002), which ultimately impairs the image of organizations. Furthermore, Canaff & Wright (2004) pointed out that negative emotions in the workplace decrease employee morale and commitment to the organization and increase turnover intention.

2.2 Emotional contagion

It was not until the 1990s, when social psychologists re-emphasized the critical role of emotions in interactional processes, that EC regained academic attention. Given the human's tendency to imitate others for survival, EC was recognized as important in maintaining adaptive social interactions (S. Zhang et al., 2022). EC has been defined differently in the theoretical literature. This article focuses on the definition proposed by Hatfield et al. (1993), who characterized EC as the "tendency to automatically mimic and synchronize expressions, vocalizations, postures, and movements with those of another person and, consequently, to converge emotionally."

In terms of terminology, contagious diseases are transmitted from a patient to a healthy person directly or indirectly via some carriers such as water, air, food, excretions, or living pathogenic microorganisms. More specifically, in psychology, contagion refers to the transmission of moods, ideas, feelings, and beliefs from one person to another individual (Valenzano et al., 2020). The complex structure of responses manifested by contagion substantiates its relevance to a family of phenomena (Hawk et al., 2012).

There is no unique definition for EC; nonetheless, there is a consensus about some aspects of affective phenomena. Barsade et al. (2018) propose four features of EC: (1) EC comprises distinct emotions and generalized moods; (2) when the confluence of conscious and subconscious processes occurs, the results reveal when individuals are both the targets and elicitors of EC; (3) from one point of view, EC can occur within small groups, dyads, larger societal collectives, and small groups individually or/and collectively; (4) EC, as a social influencer, initiates the permeation of feelings, thoughts, and actions. Scholars of various fields have employed diverse scientific techniques to contribute to the literature on EC in organizational contexts (for a review, see Barsade et al., 2018; Hashim et al., 2008; Hatfield et al., 2018).

Previously, EC was measured and studied in various work environments, and the purpose of studying this phenomenon was to investigate the impact that EC could have on the job results of employees, interpersonal relationships, business and profitability, and social interactions between people. Also, although the period of the COVID-19 pandemic has been studied in recent studies on EC (Belli & Alonso, 2021; Crocamo et al., 2021; Guo et al., 2021), less research has exploratively and deeply investigated the lived experience of public sector employees from the perspective of EC consequences during the COVID-19 pandemic.

3. Method

3.1 Research design

To gain deeper insights and uncover underlying meanings, qualitative research utilizing in-depth semi-structured interviews was conducted (Chen et al., 2019). Having chosen a descriptive type of phenomenology, this study followed the (Colaizzi, 1978) method to conduct this qualitative research. This research aims to unearth the lived experiences of Iranian employees regarding the consequences of EC during the COVID-19 pandemic. Phenomenological inquiry is a decent and suggested approach since it enables researchers to “understand several individuals’ common or shared experiences of a phenomenon” (Creswell & Poth, 2018) and elicits a more profound understanding of participants’ lived experiences (Waldeck, 2017).

3.2 Participants

This study involved 40 employees from various Iranian public organizations. The participants were selected using the purposive sampling method based on specific inclusion criteria. To be eligible, employees had to have experienced the phenomenon of emotional contagion (EC) both as a sender and a receiver in their organization during the COVID-19 pandemic and be able to express their experience clearly. According to guidelines, the number of participants should depend on the richness of each participant's data. After conducting 37 interviews, data repetition began to occur, indicating that saturation criteria (Saunders et al., 2018) had been met. Three more interviews were conducted to ensure adequate data collection, resulting in no new themes emerging and confirming that enough data had been obtained to answer the research propositions. Twenty-five of the interviewees were female, and fifteen interviewees were male. Participants’ ages ranged from 23 to 60 years. The participants worked in the hospital (n = 13), Red Crescent (n = 12), university (n = 9), and bank (n = 6). The work experience of the participants ranged from 2 to 29 years.

3.3 Data Collection

Data collection began in October 2021 and concluded in December 2021. Initially, we acquired a contact list containing employee names and phone numbers from the HR departments of the organizations under study. We then contacted them to confirm their willingness to participate in our research. In-depth online and face-to-face interviews were used to collect data. Face-to-face interviews were conducted on the premises of the organization. However, due to the COVID-19 pandemic, some

interviews were conducted online with Google Meet. As a starting point, the researchers clarified the concept of EC before each session. They made sure that the participants had the experience of receiving and sending emotions in the workplace during the COVID-19 pandemic. Three general questions to enter the interviews were: "Were you exposed to emotions during the Corona era?", "Did you transfer your emotions to others?" "Were you affected by the emotions of your colleagues?" The interviews spanned from 35 to 55 minutes, which is by the acceptable average time of 40.7 minutes in phenomenological inquiries (Follmer et al., 2018). Each session began with two questions: "What is your experience with EC during the COVID-19 pandemic?" and "How has the spread of emotions during the pandemic affected your work?" The participants were then encouraged to mention specific examples of their experiences regarding the EC during the COVID-19 period, which was discussed in detail. Among the questions asked were: Did the emotions you received affect your behavior? If so, would you please give us some examples? How did you feel when you received the emotions? Did the emotions you received affect your job performance, life, and family? If so, please give us an example of your experience. In addition, researchers used a list of questions to trigger an in-depth extraction of EC consequences. While interviewing, significant answers to the open-ended questions were recorded for the participants to be utilized for future interviews and more analysis.

3.4 Data analysis

Two authors (MG and MJ) involved in the interview immediately sorted and transcribed verbatim. The interview data were analyzed by the method designed by Colaizzi (1978), which consists of seven phases of familiarization, recognizing significant statements, meaning formulation, clustering themes, exhaustive description development, fundamental structure production, and seeking fundamental structure verification. After transcribing the interviews of each participant, those significant statements, phrases, and sentences were chosen and extracted (Table 1). For each significant statement, a meaning was specified by the corresponding author. During this data analysis phase, Colaizzi (1978) emphasized that researchers are supposed to leap precariously from the produced words to the inferred meanings. Formulated meanings should never become disparate from the original transcripts. The prerequisite of the next phase is organizing all the formulated meanings into theme clusters. In this phase, all the results acquired are grouped into an exhaustive description. This phase proceeds with reviewing the comprehensive description and turning it into a more concise statement, identifying the fundamental structure of the phenomenon. The final model contained 22 selected codes as well as seven components (see Table 2).

Table 1. Example of extracting significant statements

No.	Significant statements
1	I became obsessed too much; I would not even let the clients in, and I would talk to them from behind the window.
2	When a bad situation (illness and death) happened, the emotions caused by it were transmitted to me as well. As a result, I was worried and felt that there was no hope.
3	I had a nervous breakdown, I had neuromuscular pain, and because I had a cervical disc, I was more upset at this time.
4	I got physically depleted when I received negative emotions.
5	I cut ties with other departments because I was afraid I might get sick too.
6	When I was affected by negative emotions, I became angry faster, and my tolerance threshold dropped. I was the same when dealing with patients and clients.
7	I was emotionally and behaviorally affected by the negative emotions of the work environment during the pandemic period. I also passed on all the feelings I received from my colleagues to my family, and they were affected by my bad mood.

Table 2. Emotional contagion consequences

Main dimensions	Components	Selected codes
Individual consequences	Mental disorders	Stress
		Anxiety
		Depression
	Negative emotions	Obsessive-compulsive disorder
		Fear
		Frustration
Negative physiological changes	Aggression	
	Rapid heartbeat	
	High blood pressure	
Organizational consequences	Job burnout	Sweating
		Employee fatigue
	Communication apprehension	Reduced employees' ability
		Reduced employees' performance
		Loss of trust
		Distancing
		Loss of confidence in interactions
		Mistreatment toward clients
Venting at the workplace	Aggression to clients	
	Improper provision of services to clients	
Extra organizational consequence	Work-family spillover	Decreased family satisfaction
		Reduced open and effective family communication
		Family tension

3.5 Trustworthiness

Trustworthiness is a criterion showing that the findings are worthy of attention for the researchers and readers (Lincoln & Guba, 1985). An important step toward substantiating trustworthiness is receiving participants' feedback regarding the conclusions and interpretation (Silverman, 2020). Moreover, observing and being involved in the research scene meticulously, as well as recording the voices of participants, enhances trustworthiness in a qualitative study (Creswell & Poth, 2018). Three strategies were adopted to reach an acceptable level of trustworthiness:

1. *Validation by participants*: the secondary coding stage (Sub-themes) was double-checked with respective participants to ensure that they were in congruence with what they had stated.
2. *Peer review*: three assistant professors (one assistant professor in public administration and two assistant professors in psychology) were asked to review the findings and give their opinions on the coding process.
3. *Participatory research*: research samples were invited to offer their opinions on the Interpretation and data analysis. Their affirmation showed that the results were a reflection of their actual experiences, views, and feelings. The acquired feedback helped us improve data interpretation, eliminate misleading information, and
4. *Pluralism*: The participants were selected from a variety of organizations (banks, red crescent, universities, hospitals) and organizational levels (managers and employees).

In addition, the reliability of this study was assessed based on the inter-coder's reliability coefficient. Table 3 indicates that the inter-coder's reliability coefficient was measured 76%.

Table 3. Reliability coefficient

Components	Reliability coefficient	The weight of each component	Reliability coefficient: weight of each indicator	Reliability coefficient average
Mental disorders	0.80	1.06	0.853	0.76
Negative emotions	0.72	0.96	0.700	
Negative physiological changes	0.60	0.80	0.480	
Job burnout	0.87	1.16	1.020	
Communication apprehension	0.77	1.03	0.800	
Venting at the workplace	0.70	0.93	0.653	
Work-family spillover	0.77	1.03	0.800	

4. Findings

The final seven themes, which reflected the consequences of EC experiences during the COVID-19 pandemic, were reflected by considering 156 significant statements formerly extracted through the close investigation of the participants' words.

4.1 The mental disorders

Employees' mental disorders were one of the EC consequences in Iran during the COVID-19 pandemic. Stress, anxiety, depression, and obsessive-compulsive disorder were the most repeated terms used by interviewees who had experienced EC during the COVID-19 pandemic in organizations. In the pandemic background, stressors mainly rise due to the pertinent circumstances of COVID-19, comprising potential exposure to this virus, the demise of loved ones, as well as economic crises, psychosocial effects, and psychological conditions. One employee mentioned, *"During the early days of the pandemic, personnewas very stressed and anxious, and they transmitted their negative emotions to us, creating a distressing and stressful atmosphere was very stressed and anxious, and they transmitted their negative emotions to us, creating a distressing and stressful atmosphere."* In terms of depression, anxiety, and obsessive-compulsive, a participant said, *"When I heard that one of my colleagues had coronary heart disease and died, I got depressed for a long time, and when this information was given to other colleagues, due to this bad news, I got very anxious."*

4.2 Negative emotions

Fear, frustration, and aggression were the consequences of EC in Iran during the COVID-19 pandemic. Indeed, the COVID-19 outbreak functioned as a literal form of community stressor, disseminating fear and worry in the public. Higher levels of EC mean more possibility of becoming attuned to others' emotional experiences, thereby experiencing heightened fear. One participant stated: *"During the pandemic, when I heard about the illness or death of our colleagues, I was filled with fear"*. Some employees experienced feelings of frustration due to emotional transmission. One employee said, *"I did not want to wake up in the morning and get frustrated. When I was exposed to the news of the death and illnesses of my co-workers due to Corona"*. In this study, the employees who cognitively found themselves entrapped by pandemic restrictions, particularly when COVID-19 lasted unabatedly for several months, were more likely to perceive it as frustrating, which would then make them more aggressive. One participant described his aggression as follows: *"Every time I joined the organization, one of my colleagues said if I had heard any news or if I had heard someone got sick, I was also affected by these emotions and got angry and shouted. I could not do anything; I was constantly arguing with my colleagues."*

4.3 Negative physiological changes

The transmission of negative emotions in the organizational setting causes the recipients of these emotions to experience negative physiological changes (such as rapid heartbeat, high blood pressure, and sweating). Respondents reported, *"My co-workers expressed their feelings, and the stress they conveyed made both the patient and me restless, who had to get ready for the operating room. For example, my colleague said, "Be quick, now the patient is having seizures and ... this transferring of emotions made me agitated at that moment ... my palms were sweating, and I was upset"*.

4.4 Job burnout

The public sector employees, especially street-level bureaucrats, were more susceptible to the virus during the COVID-19 pandemic. The persistence of the COVID-19 outbreak put these employees at risk of job burnout. The transmission of emotions such as stress, anxiety, and fear in the workplace leads to more fatigue, reduces the ability and energy to perform job tasks, and ultimately reduces employees' performance. In this study, healthcare staff felt more emotionally exhausted. A female employee of a government hospital said, *"Once, on a stressful night shift, in the initial encounter, my colleague transferred all his stress to me, so I felt bad, and this caused discomfort and fatigue during my working time, and I was utterly unproductive. I did not do well in my job"*. Another nurse said, *"One day, one of my colleagues mentioned that Mr. X, who had had coronary heart disease, died of a heart attack. It all messed us u,p and we were intimidated. At that time, I was also sick due to Corona,*

and I was tired, bored and my productivity was low". Moreover, a different participant described her experience of burnout in detail: "I have a co-worker who reports all his problems such as illnesses or the deaths of relatives in the workplace, and we get saddened by what happens to him, and that I ruminate on the news for hours, which depletes my energy at work."k."

4.5 Communication apprehension

Communication is a fundamental parameter causing organizations to avoid common pitfalls and function at their fullest capacity. Many participants felt that EC experiences negatively impacted their professional relationships through loss of trust, distancing, and loss of confidence in interactions. Both the fear and anxiety of COVID-19 and the contagion of these emotions in the workplace cause employees to be apprehensive and reluctant about communicating with each other face-to-face. Hence, one of the main effects of transmitting the fear and anxiety of getting sick is communication apprehension. An employee of a public bank said, "In this period, the climate of fear from Corona at the bank caused them to keep their distance from each other. For example, we used to spend a short time together eating breakfast, but now no one is willing to do, and we are afraid of getting close to each other." Another participant mentioned, "It was a bad day; I was worried about attending work meetings." ings".

4.6 Venting in the workplace

Transmitting negative emotions such as fear and stress leads to mistreatment toward clients by employees. During the COVID-19 pandemic, the employees vented their negative emotions on the clients due to the pressure caused by the virus. Our findings showed that when employees are exposed to negative emotions (for example, listening to negative experiences from coworkers), they vent their anger and frustration at work on the clients and others. For example, an employee asserted, "Having been influenced by my colleague's feelings, I got very upset and angry. Then the clients. For example, when the client asked me a question, then I answered it, but if he or she did not understand my answer and asked for more explanations, then I answered aggressively and angrily".

4.7 Work-family spillover

Finally, During the epidemic, EC also impacted families adversely. One of the ways emotions in which the epidemic has impacted family functioning is negative work emotions, which can lead to more severe family strain and disruption, ultimately giving rise to decreased family satisfaction as well as reduced open and effective family communication. Some examples of participants' sentences were: "During the outbreak, when I was affected by the negative feelings of the workplace, I was not happy in my personal life, and I automatically transmitted my tiredness and stress to my family. This is also passed on to the people at home. Sometimes, my family members asked me if something had happened; after my explanations, they got worse," "When there was a challenge at the workplace, I would pass on all the feelings that had already affected me at work to my family. For a short time, some dispute terminated the calm atmosphere of the family".

5. Discussion

The purpose of this study was to understand the employees' lived experiences of EC and its consequences in Iran during the pandemic. This unprecedented research studied the scientifically scientific experiences of employees regarding EC consequences during the COVID-19 outbreak. Due to the period during which the data were collected, this study reveals unique insights into EC. Based on the results of this study, EC had seven consequences, which are proposed in Figure. One and elaborated on in the following paragraphs.

5.1 Theoretical implications

This research contributes to the current literature on EC in several ways. The first consequence was mental disorders. The current research showed that stress, depression, and anxiety were engendered through the susceptibility of receivers to emotion contagion. Tragic events such as illnesses and deaths of co-workers and the spread of corresponding news at the workplace can cause people to experience stress, depression, anxiety, and obsessive-compulsive. Similarly, Valenzano et al. (2020) pointed out

that COVID-19 can trigger numerous significant neurological disorders, thereby initiating a rise in people's reporting mental health problems such as anxiety and depression.

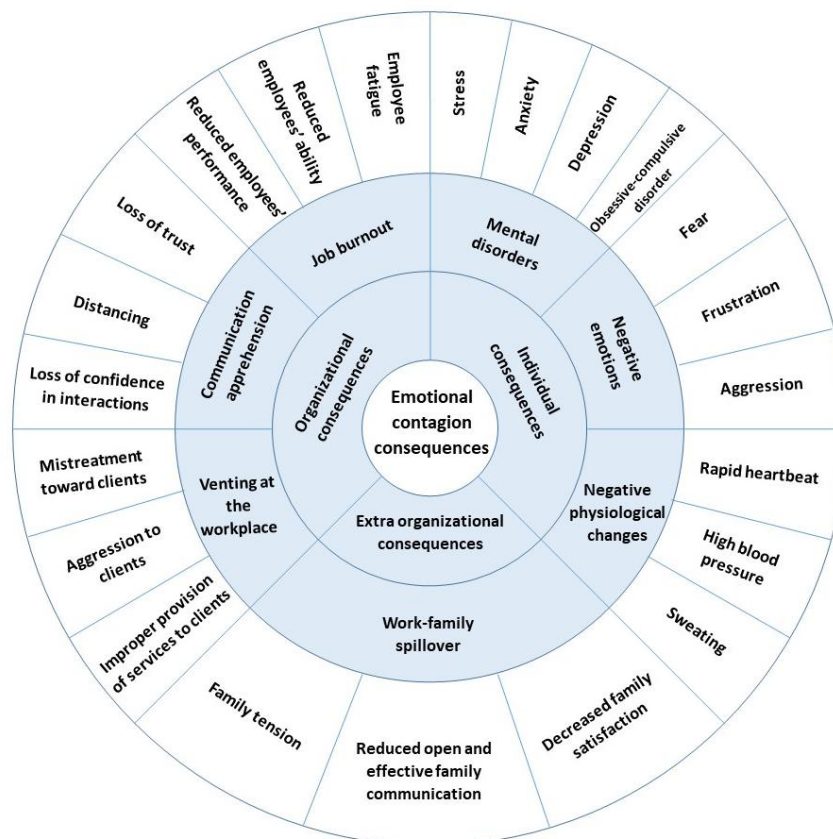


Fig. 1. Emotional contagion consequences during the COVID-19 pandemic

The participants pointed to the negative consequences of EC, which affected their psychological and professional development. Our findings are consistent with those of previous studies showing that fear (Schimmenti & Starcevic, 2020) is the result of EC. Additionally, participants mentioned both frustration and aggression as the consequences of EC. In the same vein, Hacımusalar et al. (2020) noted that during the prevalence of COVID-19 disease, no prediction regarding its course could be made; its duration and severity were capricious; the absence of a certain treatment method and vaccine, and the high rate of mortality generated hopelessness about the future. Moreover, based on the hypothesis of reformulated aggression frustration-aggression (Berkowitz, 1989), aggression is a common outcome of thwarted individual goals, particularly when the frustration leads to a negative affective state. Additionally, Breuer & Elson (2017) asserted that frustrations can increase the inclination toward aggressive tendencies.

Third, our findings from the interviews demonstrated that people exposed to EC during the COVID-19 period experienced physiological changes such as rapid heartbeat, high blood pressure, and sweating. Previous studies have not explored whether these physiological changes are the direct result of transmitting negative emotions such as fear and anxiety. During a pandemic, a person is likely to feel overwhelmed with anxiety. COVID-19 provokes anxiety, which causes and increases chest pain and other physical symptoms due to ruminating on contracting COVID-19. To elaborate, when a person becomes anxious, their body goes under intense physical and mental symptoms (Faisal et al., 2022), which can trigger a panic attack. Herrando & Constantinides (2021) acknowledged that negative emotions such as anger and fear are linked to certain physiological arousal patterns.

Fourth, those employees who experience negative emotions at work are more likely to become burnt out. This important point is not only proposed in the literature on EC but also substantiated by the output of the interviews. For instance, Miller et al. (1988) illustrated a fascinating example

germane to how EC can function as a precursor to burnout among healthcare service workers. Moreover, previous studies (Channappanavar et al., 2015; Shah et al., 2020) suggest that there is a positive correlation between employees' anxiety and stress working in health departments.

Fifth, communication apprehension was a term used to describe participants' apprehension about communicating with each other. Communication apprehension is viewed as the proclivity to "avoid communication, if possible, or suffer a variety of anxiety-type feelings ... " (McCroskey, 1976). according to McCroskey (1976), communication apprehension addresses "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (McCroskey & Richmond, 1979). In the same vein, previous research by McCroskey & Richmond (1979) showed that communication apprehension can pervade various communication settings, including work.

Sixth, the findings revealed that when employees are exposed to negative emotions, they vent their anger and frustration at work on the clients and those with whom they interact. Venting is an emotion-focused form of coping, aiming at discharging negative feelings (Rosen et al., 2021). Thus, our findings are consistent with the results from previous studies, showing that EC can affect customers and clients in the interactions between clients/customers and frontline employees (Barger & Grandey, 2006; Liu et al., 2019; Pugh, 2001).

As the final theme, work-family spillover happens when emotions, stress, moods, and behaviors experienced at work are transferred to the family domain (Mennino et al., 2005). Three decades ago, Bluedorn & Kanter (1980) pioneered the investigation of work-family issues and argued that work and family are intertwined. Drawing on spillover theory (Lawson et al., 2013), the boundaries between work and family lives are blurred in a way that distinct work-family spillover experiences, regardless of their positivity or negativity, spillover from work to family and family to work (Grzywacz & Marks, 2000). The consequences of EC in the workplace during the COVID-19 outbreak are negative from work to family. Thus, our findings align with previous studies' results (e.g., O'Neill et al., 2009), showing that higher levels of negative work-to-family spillover can reflect negative EC processes in organizations.

5.2 Practical implications

This study has intriguing practical implications for public organizations. This study showed that the COVID-19 crisis has caused a lot of psychological damage to employees and has negatively affected their emotions. These negative emotions are transmitted and received by employees in an organization. The consequences of these emotions affect not only the organization but also the family and clients in a cascade manner. Public organizations and managers must recognize that the EC during the COVID-19 pandemic may lead to work-family conflicts, which will affect employees' work efficiency in the workplace, even negatively affecting organization performance.

Also, our study suggests that managers of public organizations can improve employees' regulatory emotional self-efficacy during the COVID-19 pandemic by providing regular training sessions on emotion control, stress management, and mindfulness to reduce the effects of negative emotions on employee performance. By improving their emotion regulation ability, employees will succeed in improving their perceived performance and suffer less from negative emotions (Waugh et al., 2008).

6. Conclusion

This study provides unique insights into the consequences of emotional contagion (EC) during the COVID-19 pandemic. Although previous research has explored EC, our study offers a clearer and more profound understanding of this phenomenon. By utilizing phenomenology, we were able to uncover new insights into the consequences of EC. Our findings demonstrate that the effects of EC are not limited to individual employees but can also impact organizations, clients, and even families. Furthermore, our results highlight the serious and potentially destructive nature of negative emotions generated by EC during times of crisis. Therefore, Organizations should prioritize managing these emotions to mitigate their impact.

7. Limitations and future research direction

There are some inherent limitations to this research. First, the results provided a window into diverse experiences of EC consequences; however, those experiences are subjective and are not qualified to depict the dynamic dimensions of EC. This research did not pursue generalizing the findings through inference (i.e., inferential statistics). Triangulation and mixed-method approaches can be employed to overcome these shortcomings. Secondly, this research was confined to the consequences of EC, yet future studies may raise a more comprehensive understanding of this phenomenon by exploring the antecedents, facilitators, and inhibitors of EC in the workplace (Chartrand & Lakin, 2013). Finally, since this study was conducted during the COVID-19 outbreak, it only focused on negative emotions. Thus, future research should examine both positive and negative emotions and the interplay between the two (Liu et al., 2019; Smith & Rose, 2020).

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