# Psychosocial Construction of Fear: A Qualitative Content Analysis of COVID-19 Survivors' Stories Published in Online Newspapers

#### \*Rubina Kauser

University of Management and Technology, Lahore, Pakistan **Azher Hameed Oamar** 

National University of Sciences and Technology, Islamabad, Pakistan

In a brief time, COVID-19 has changed the global picture. In the context of this pandemic, people are experiencing anxiety and fears. These fears of people are intensified by several factors such as personal experience of disease, the stigmatization they faced, and rejection they endured. Different theoretical perspectives explained the fear, ranging from death anxiety to stigmatization and from social exclusion to family estrangement. The purpose of this study was to understand how "corona fear" is psychologically and socially constructed. 24 COVID-19 survivors' stories were selected from known e-newspapers such as Arab News, Times Herald, Express Tribune, Dawn News, India Today, BBC News, and Aljazeera News of different countries: Pakistan, China, South Korea, Argentina, South Africa, Nigeria, and Michigan. Using conventional qualitative content analysis, the narratives were analyzed. The results showed four major themes: Risk perception, death anxiety, social stigma, and psychological crisis. It was evident that corona patients bore double pain; physical pain due to the disease, and emotional pain due to social rejection and discrimination. Health care authorities can join hands with mental health professionals to implement programs resolving psychological crises and stigmatization which can help overcome such elements. By this study, we assume that a sociolinguistic analysis of the narrative accounts of COVID-19 patients and their caregivers can provide rich data related to language situated in pandemic contexts.

*Keywords:* the language of fear, the psychology of fear, psycho-social construction of fear, COVID-19 fears, COVID-19 survivors

'Nothing spread like fear' (Burns & Soderbergh, 2011)

The outbreak of coronavirus disease (COVID-19) in Wuhan (China) spread in several countries within weeks and with the increase in the number of affected population and death toll, a variety of fears haunted people across the globe (Casanova et al., 2020; Li et al., 2020; Wang et al., 2020). The world is not facing a contagious disease for the first time, as it has witnessed damages done by severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome coronavirus (MERS) in the beginning of the twenty-first century. However, COVID-19 is highly contagious and a severe phenomenon which can cause a healthcare disaster in the whole world (Lum & Tambyah, 2020; Su et al., 2015). Since the situation is becoming serious, fear of this 'unseen' threat is causing anxiety. In such circumstances, we are advised to cope with anxiety by washing away 'corona fears' in 20 seconds of hand-washing, detaching socially, and obeying 'do not touch' cautions. The underlying message is, 'contact may be dangerous'. The Governments are establishing social distance as a 'temporary norm', through lockdown. Media is modifying our social cognition from 'handshakes, hugs, and kisses to a '6-feet masked' greeting.

<sup>\*</sup>Correspondence concerning this article should be addressed to Ms. Rubina Kauser, School of Professional Psychology, University of Management and Technology (UMT), Lahore. Email:rubinakauser.psychology@gmail.com

Gradually, we are 'learning' to fear the COVID-19 threat and protect ourselves. Uncertain situations, rapidly spreading disease, confusion about information, sensational news, and countrywide shutdown are increasing fear among people. On the other hand, in addition to corona fears among front-line healthcare professionals who are exposed to the disease (Amin, 2020), electronic and print media are reporting stories of COVID-19 survivors who share their traumatic fears this 'incurable' disease. These stories provide narratives of negative thoughts related to the helplessness they experienced during disease. In this paper, we are interested in these narratives to explore the language particularly related to the fear experienced by the affected patients.

## The 'Corona Fear': A Psycho-social Construct

DSM-5 suggests 'fear' is a response to the threat that is approaching towards us and 'anxiety' is a response to future threats (American Psychiatric Association, 2013). When people perceive something as uncontrollable, unexplained, and difficult to cope with, they experience fear that causes anxiety. In the context of the COVID-19 outbreak, we experience both fear and anxiety. Over time, we have become sensitive to its presence around us. At the same time, we are concerned about our future in many ways under the prevailing uncertain and alarming situation. One way or another we are experiencing an internalized sense of fear and anxiety cultivated through discourses of fear presented by media, politicians, economists, healthcare professionals, scientists, and people in our neighbourhood (such as our social media network). For example, 'stay at home' is a message strongly conveyed to protect us from the highly contagious effects of coronavirus. However, at the same time, this message is a 'package' of precautionary measures and fears related to coronavirus. Consequently, the way it is communicated may cause Corona collateral damage syndrome that is caused by the fear of visiting hospitals or healthcare service centres in the current situation (Stock et al., 2020).

Fear of getting infected by COVID-19 is a learned fear that shatters our sense of preservation and endangers our survival. On one hand, scientific information about COVID-19, its rapid infection, incurability, and novelty cause fear. On the other hand, the media plays its role in multiplying the fear by using words such as "lethal virus", "outbreak", "alarming condition". The infodemic of this viral disease through different sources of the media further worsens the situation. Thus, the most common reaction of any human to this situation would be fear, anxiety, and depression which ultimately reflects in their narratives.

### **Risk Perception**

Risk perception is a subjective psychological construct that differs from individual to individual and country to country depending upon the cognitive, emotional, social and cultural factor across nations (Douglas & Wildavsky, 1983; Joffe, 2003; Kasperson et al. 1988; Loewensteinet et al., 2001; Leiserowitz, 2006; Slovic et al., 1982; Sjoberg, 2002; Slovic, 2010; van der Linden, 2015; 2017; Wildavsky & Dake 1990). Risk perception is a factor that causes fear in the general public and hence, more risk perception and greater precautionary measures. It is a combination of the cognitive evaluation of the risk and emotional response that often overcome or exaggerates the cognitive evaluation presenting fear as blocking rationality of situation or problem. Even though cognitive evaluation, in this situation, depends a lot on information sources and how frequently people follow it for awareness; the risk perception is flooded by emotional responses in the form of fear (LeDoux, 2015; Loewenstein et al., 2001; Slovic, 2010). Risk perception depends upon several factors, such as trust in the authority,

familiarity, dread of the situation, uncertainty on the part of officials, and personal risk of danger (Ropeik & Gray, 2002). van der Linden's (2015; 2017). Risk perception model includes a cluster of variables that determine the degree to which an individual will perceive the event as a serious hazard. These variables include: Cultural traditions, emotional and experience traditions, sociocultural paradigm and individual differences. Cultural traditions refer to cultural knowledge and understanding of the risk. Personal experience with the hazard lays the basis of emotional traditions towards a risk. Cultural magnification of a risk, cultural values, trust, and theory are socio-cultural cluster variables of risk perception. Gender, personal beliefs, and education level are individual factors of variation in risk perception. All of these variables holistically determine how an individual will perceive the risk.

### **Death Anxiety**

Death anxiety prevails in society when death is seen as predestined, and thus leads to fear of dying (Khalek, 2005). Thanatophobia is an alternative term used for death anxiety that is closely connected to the fear of the dying process. Uncertainty about life after death, the pain of dying, family concerns after death, losing a chance of doing good, and preservation are some of the fears related to death anxiety. Templer (1970) presented a two-factor theory of death anxiety suggesting two factors contributing to death anxiety; a person's mental health state and experiences related to death in real life. He argued that the actual process of death anxiety is more complex and could not explain why humans fear death. Nevertheless, in the context of COVID-19 breakout there are internal (such as risk perception) and external factors (such as infodemic, precautionary measure campaigns) which are negatively affecting the mental health of people. With this mental health status, people who experience the disease, mostly face psychologically and socially constructed death anxiety. Many researchers used the mortality salience to approach the study of death anxiety and found that death anxiety causes several mental health issues (Menzies et al., 2020; Strachan et al., 2007). One study used a clinical sample of OCD and found that mortality salience leads to compulsive hand-washing. Death, reminding doubles the time spent on hand-washing (Menzies & Dar-Nimrod, 2017).

### **Social Stigma**

Another external cause of COVID-19 fear is stigmatization. People experience discrimination based on their diagnosis of this infectious disease. Stigma theory describes observable discriminating behavior towards a person based on characteristics, such as skin color, body type, ethnicity, and religion (Goffman, 1984). COVID-19 is not an observable disease, and we cannot say who is infected. However, once diagnosed with COVID-19 by healthcare professionals, the labeling of 'contagious' and stigmatization begins. This is the main reason people avoid hospitals even for a routine check-up or for chronic diseases. Once labeled 'affected', we cultivate the fear of contagion as an expression of avoidance towards the patient. Earlier studies that reported fear of AIDS explored the fear of contagion as a public response to stress by marginalizing patients to take extreme precautions (Bennett, 1998; Meisenhelder & LaCharite, 1989).

Hence, we have:

- Cognitive appraisal of the stressful situation influenced by our active thinking process and passive learning behavior
- Emotional response to the situation that is often triggered by innate fears and reinforced by irrational thoughts about the external situation
- Socio-cultural context where narratives of fears are grounded.

There is no sufficient empirical data available on experiences of COVID-19 patients. There is a dire need to study the COVID-19 survivors' stories, the painful experience they go through, the stigmatization they faced, the rejection they endured, and the psychological crises they suffer. The purpose of the present study is to explore the psycho-social constructs related to fear as it appears in the stories of COVID-19 survivors. Keeping in mind the limitations of current lock-down situation and associated risks in Pakistan, we decided to investigate the stories published in online newspapers pursuing the following research question; How do the COVID-19 survivors describe the fears they experience during COVID-19?

#### Method

## **Research Approach and Sampling Strategy**

A qualitative research approach was used to explore the COVID-19 survivor stories published in online newspapers. A purposive sampling technique (Patton, 2002) was used.

## Sample

Twenty-four COVID-19 survivor's stories from Pakistan, China, South Korea, Argentina, South Africa, and Nigeria were collected from the e-papers of Arab News, Times Herald, Express Tribune, Dawn News, India Today, BBC News and Aljazeera News.

#### **Procedure**

Using conventional qualitative content analysis, we extracted significant statements from the data relevant to the research question. Each statement was read several times to get a familiarity with the description of fear in these narratives. Each verbatim account was used as a meaning unit; words and phrases to fear were underlined and labeled with pertinent codes. The codes were then clustered into conceptual categories (sub-themes) and finally, sub-themes emerged into core theoretical categories (themes). A reverse examination of the data analysis was conducted using emerged themes as anchors, tracing back to the accounts for words and phrases used by the storytellers. Ambiguities were removed by both the researchers with the consensus on each step of the data analysis. A sample of meaning units and emergent codes were developed (Table 1).

### **Ethical Considerations**

The survivors' narratives were in public access so informed consent was not required from COVID-19 survivors. There was no direct or indirect psychological or physical harm involved to the participants as the narrative analyses of the COVID-19 survivors' stories were conducted from online newspapers.

#### **Results**

**Table 1**Content Analysis of Narratives and Examples of Meaning Units and Emerging Codes

Meaning Units	Codes
"I am still ostracized by my family members, despite	Family rejection, social rejection,
recovering from coronavirus infection over a month	social hatred, family avoidance,
ago. Back in my hometown, people loathed my family	abandonment
for having contracted the virus. After recovering I have	

Meaning Units	Codes	
realized that people still wanted to avoid him. None of		
my family members are ready to take me in after I have		
recovered from the disease. Even my friends have		
abandoned me, except for one who has arranged		
accommodation for me." (s10)		
"There is a general misconception amongst people that	Avoidance, social rejection	
the <u>surviving patients should be avoided</u> . I understand	,	
that people want to avoid me and my way of dealing		
with the situation is to ignore them." (s11)		
"I couldn't sleep, anxiety invaded the room	Sleep disturbance, anxiety,	
nightmares came, death prowl. I was afraid of dying	nightmares, death anxiety, fear of	
without being able to cling on to the hands of my family	dying in isolation, hopelessness	
and friends, despair overcame me."(s13)		
"I could not sleep at all. It lasted for two days. I had to	Sleep disturbance, fear of dying in	
hold a plastic bag at all times because I kept on	isolation	
coughing up phlegm. Then my face started swelling. $\underline{I}$		
was scared I might die alone." (s16)		
"My children put themselves <u>under great pressure</u> , they	Great pressure, helplessness,	
want to succeed at school. Their teachers give them	cannot touch children, low morale,	
work as if the situation were normal. The big one is	crying	
preparing for her end of secondary school exam and I		
see her cry when she can't manage and <u>I can't hold her</u>		
in my arms, console her, help her. My morale is rock		
bottom. I can't stop crying" (s17)		
"It was terrible, the days I spent at the hospital, no one	Terrible experience, isolation,	
could come near us. I could not touch or kiss my	cannot touch children, suicidal	
children. At one point, I contemplated suicide, as the	thoughts, feeling of guilt, crying,	
thought that I have infected my children weighed	death anxiety	
heavily on my mind. I would cry all the time; I was		
sure I was going to die." (s1).		

The analysis of the narratives yields four major themes as mentioned in Table 2.

 Table 2

 COVID-19 Survivors' Stories: Themes, Sub-themes, and Significant Statements

Themes	Sub-themes	Significant Statements
Risk	Fear of Contagion	"No one could come near us. I could not touch or kiss
Perception		my children." (s1)
	Informed Fear	"I recovered in eight days that should give everyone

Themes	Sub-themes	Significant Statements
		some hope. This virus is deadly" (s3)
Death Anxiety	Fear of Death	"A sense of death stalking the hospital ward, fear of dying alone, tearful despair and disarray at home, solitude, anger and the desire to share, or change their life". (s13)
	Incurable Disease	"I saw with my own eyes that others failed to recover and died, which has had a big impact on me."(s23)
Social Stigma	Discrimination	"After recovering I realized that people still wanted to avoid me. None of my family members were ready to take me in after I had recovered from the disease." (s10)
	Exclusion	"My photo was all over the social media and I became a pariah."(s8)
	Rejection	" back in my hometown, people loathed my family for having contracted the virus." (s10)
Psychological Crisis	Depression	"It was horrible. I was sad, depressed, every day," he said. (s4)
	Anxiety	"The pandemic had also caused an increase in anxiety among the people." (s11)
	Trauma	"The trauma can remain once I get home." (s4)
	Stress	"I may also suffer from anxiety and other psychiatric issues similar to post-traumatic stress after extended periods of isolation from loved ones." (s4)
	Isolation	"The hardest parts were the nights, alone with my fears." (\$14)

## **Risk Perception**

Risk perception is defined as a subjective evaluation of a potential hazard. The first major theme found is risk perception with two sub-themes; fear of contagion and informed fear. One corona survivor story from Pakistan (s1) said; "No one could come near us. I could not touch or kiss my children." It is fear of contagion; we already know how these viruses transfer through physical contact, human interactions, and by exposure to an infected person. "I recovered in eight days that should give everyone some hope. This virus is deadly" said another survivor (s3) from Pakistan. The survivors already had knowledge and information about the potential danger. It was the knowledge of all how lethal and life-threatening this virus is. A resident of Swat, (s12) narrated "I was initially mentally disturbed at the prospect of a crowded and dirty hospital ward, but after being admitted, I found the isolation ward to be clean and hygienic." Health care units, hospitals, and working staff and professionals are at greater risk of developing the disease as they are frontline fighters against COVID-19. The participant was initially concerned about potential

exposure at the hospital and was mentally disturbed because he perceived himself at a higher risk.

### **Death Anxiety**

Death anxiety is the second major theme which is defined as the fear of losing your life when death prevails in society due to infectious disease and a higher number of casualties. The analyses of 24 narratives showed that one fear was common to all the survivors which was the "fear of dying" and the "fear of dying alone". A survivor from Nigeria described that when she tested positive for COVID-19 the first thing that came to her mind was "Am I going to die?", s24 said that she was feared to be one of the dead people. Survivor (s1) from Pakistan said that "he feared he would die". Another survivor from South Korea (s13) described his terrible experience as; "A sense of death stalking the hospital ward, fear of dying alone, tearful despair and disarray at home, solitude, anger and the desire to share or change their life. I was scared that I might die alone". The survivor (s13) further said that "I was afraid of dying without being able to cling on to the hands of my family and friends, despair overcame me". Thus death anxiety was common amongst all the survivors of COVID-19.

## **Social Stigma**

The third major theme revolves around stigmatization associated with this infectious disease. Social stigma is here meant to be a biased attitude of society towards COVID-19 patients based on their illness. Different stories from the world revealed how people loath and discriminate against patients who become infected with this disease. Even their families abandoned them although they recovered from this deadly virus. A survivor from Pakistan expressed his painful experience of family rejection and social exclusion as: "I am still ostracized by my family members, despite recovering from coronavirus infection over a month ago. Back in my hometown, people loathed my family for having contracted the virus. After recovering I have realized that people still wanted to avoid me. None of my family members are ready to take me in after I have recovered from the disease. Even my friends have abandoned me, except for one who has arranged accommodation for me" (s10).

### **Psychological Crisis**

Psychological crisis is the fourth and last major theme. Psychological crisis is a state of mental illness when your coping resources are insufficient to handle a traumatic and stressful situation. Increased risk perceptions, death anxiety, family rejection, social exclusion, stigmatization, and avoidance all contribute towards psychological crisis. A South Korean survivor (s13) said, "I couldn't sleep, anxiety invaded the room... nightmares came, death prowl. Alone in a room". A Pakistani survivor (s3) stated, "I often have nightmares and suffer panic attacks after reading about global casualties on social media". A survivor (s13) described his pain as: "A sense of death stalking the hospital ward, fear of dying alone, tearful despair and disarray at home, solitude, anger and the desire to share, or change their life". A French woman said, "My morale is rock bottom. I can't stop crying," (s17). A Pakistani survivor (s12) said, "It was not only painful but also very tiresome for me". Another survivor (s4) from South Africa stated, "It was horrible. I was sad, depressed, every day".

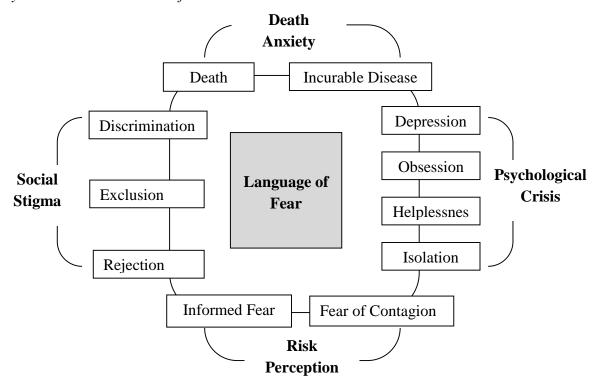
Figure 1
Codes (words used) Corresponding Fears



### **Discussion**

There have been numerous health crises over the centuries, but none affected the world in the sense COVID-19 has. Ouarantine is the only option left to the world for prevention against coronavirus. This virus has changed the global picture and forced people into social isolation. People's health is deteriorating because of the coronavirus and mental health because of lockdown. Although death is anticipated, no one ever thought of death as much as have in these few months. People are anxious about their health and their loved ones' well-being. The concept of death and dying is universal, but its anxiety is contextual. The recent condition of the global pandemic has created an anxiety that multiplies with the increased death toll across the globe. The narrators 'accounts of the fear they experience provides an insight into risk perception, death anxiety, social stigma and psychological crisis ingrained in our primitive response to unexplained threats and uncertain situations (LeDoux, 2015), unnecessary worries (Davey & Levy, 1998), distracted focus caused by cognitive biases (Beck, 1995), and emotional contagion response. This situation causes a psychological crisis in which a stressful or traumatic event or experience exceeds our existing coping mechanisms and resources (James & Gilliland, 2012). In the current lockdown situation, people are at high risk of developing psychological crises because their psychological conditions are internally and externally compromised by future uncertainty, fear of disease and death, family concerns, and perceived helplessness. Ultimately the four themes reported in this article are interconnected and yield a psycho-social component of the language that we use when describing fears and traumatic experiences of life.

Figure 2
Psychosocial Construction of Fear



Content analysis provides a list of expressions and their conceptual categories (constituting the psycho-social construction of fear) that emerged from the significant statements of the narrators when they shared their fears.

The given figure (Figure 3) represents the frequency of clusters in different categories of the themes. It is evident that the psychological crises was the major theme which emerged from the data. It is also evident that stigmatization and fear of death contributed to the psychological crises. Stangl et al. (2019) provided a comprehensive framework on how the stigmatization process is facilitated and driven by social and structural pathways. They highlighted the factors that explain what the drivers and facilitators of such stigmas are. For example, drivers of stigmatization always exhibit negative traits such as fear of infectious disease, social judgment, and blame. In our study, we also found drivers of stigmatization such as fear of contagion and fear of getting infected with an incurable disease. So, these negative drivers are further mediated by facilitators which could be positive or negative, availability or unavailability of the protective materials in healthcare centers can increase or decrease such stigmatization. These stigmatization processes lead towards a range of stigma experiences i.e., lived experiences, and practices i.e., attitudes, beliefs, and actions. These stigmatized behaviors are severe such as withholding benefits and facilities based on health condition, race, gender, and sexual orientation, to moderate such as verbal abuse or gossiping. One of the survival stories from Pakistan reflects these incidents of discrimination. He reported that even after recovering from illness his family rejected him. Associative stigma was experienced by his family, when the family was verbally abused and blamed for becoming exposed to the infectious disease i.e., COVID-19. Apart from the stigma experienced by him and his family he also experienced a range of stigma practices such as social exclusion and rejection (stereotypes), discriminatory behavior of people

(prejudice), avoidance by family and friends (stigmatized behavior), and loathing by family and friends (discrimination).

**Figure 3** *Frequency Chart of Themes and Sub-themes* 

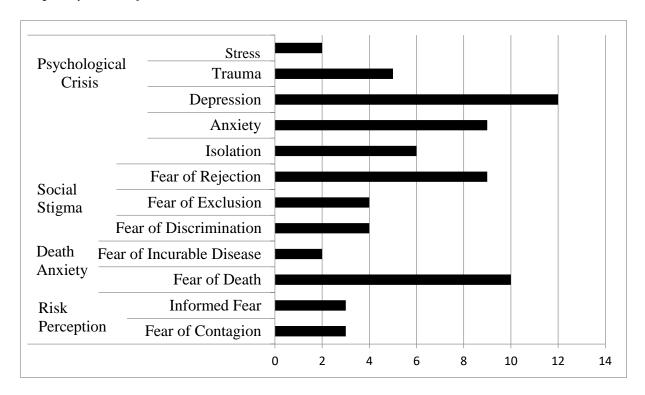


Figure 3 also clearly depicts that death anxiety was higher among COVID-19 survivors followed by fear of stigmatization. Almost all the survivors' stories reflect this fear of death termed death anxiety. Survivors reported that the first thing that came to their mind when they tested positive for COVID-19, was "Are they going to die?" The most evident reasons for this fear of death are the construction of fear by social media, electronic media, and the influence of this pandemic from all sources of information. One of the survivors from Pakistan said that by hearing the world casualty rates in the news he panicked when he heard about his own positive diagnosis of coronavirus. He said he was sure he would die too. The media has propagated and constructed this fear of death in public by giving breaking news after every hour about the increasing death tolls in the world. Terror management theory (Greenberg, et al., 1997) based on the work of Ernst Becker, an anthropologist, explains why humans fear death, and what defense mechanisms they used to overcome this fear. This theory is based upon the assumption that humans have a great desire to be alive and humans are cognitive beings, and use a different mechanism to buffer against this crippling fear of being mortal. Cognitive abilities of human beings help them overcome this anxiety by accepting cultural worldviews and self-esteem. Belief in life after death provides humans a 'symbolic immortality', which buffers death anxiety and tries to give meaning to human existence. Being a useful member of society also boosts selfesteem and gives hope that one will be remembered with good words after death (Greenberg, 2012). Survivor's depiction of this fear of death is reflected in their stories. It greatly impacts

their psychological health and the result was panic attacks, anxiety, depression, and stress, a state of psychological crisis. Many studies reported this relationship between death anxiety and mental health conditions such as PTSD (Martz, 2004), depression, anxiety, and stress (Menzies et al., 2019).

The risk perception of this virus was lower among the survivors of this fatal disease (Figure 3). The huge number of casualties around the globe also suggests a dire need to study this risk perception in public regarding this infectious disease (van Bavel et al., 2020). Dryhurst et al. (2020) argued that people's perception of risk of contracting COVID-19 infection is an important determinant of practicing protective measures. The picture around the globe indicates that people's risk perception of this fatal disease is low. Protection motivation theory (Rogers, 1983) argued that individual adoption of protective behavior for health is dependent upon several factors of the environment and the individual. These factors either encourage or discourage these precautionary measures influenced by a person's cognitive processes. A COVID-19 survivor from Pakistan greatly undermined this risk by giving ceremonial burial to his brother-in-law, first COVID-19 patient in Pakistan, and the results were that more than 70 members of his family including his children and spouse were affected by this disease. Although the authorities warned him about the expected risk, he refused by saying, "I have to offer my responsibilities", an environmental pressure generated by the cognitive process of a sense of responsibility. According to the protection motivation model, he uses inhibition of action coping method and does not engage and adopt protective behavior and the consequences drastically resulted in a feeling of guilt about infecting his children and helplessness for not being able to take care of his children.

#### Conclusion

This research article was an effort to understand the fears and stigma people experience based on their COVID-19 diagnosis. The corona patients bear double pain; physical pain due to disease and emotional pain due to social rejection and discrimination. The stigmatization against COVID-19 should be stopped to help them recover from the psychological crisis they experience even after recovery. Moreover, life and death are two sides of the same coin. The high number of casualties around the globe is creating death anxiety. Thus, health care authorities can join hands with mental health professionals to implement such programs against psychological crises and stigmatization that can help people to go through this difficult time with dignity. In this connection, understanding the language of fear is important in both the ways it is conveyed in medical and social campaigns to motivate people to stay safe and in the way people express their fears in their everyday language. Through this study, we conclude, that a socio-linguistic analysis of the narrative accounts of COVID-19 patients and their caregivers can provide rich data related to language situated in pandemic contexts.

#### **Implications of the Study**

The stories reported in this research paper were taken from different newspapers across the globe. The sample variation and stories reported provide a global picture of fears related to COVID-19 among infected patients. Their description of fear and content analysis provides useful findings and interconnections of different psychological constructs when they are put together in the conceptualized framework of 'fear'. We assume that the findings may be useful for formative research investigating COVID-19 related healthcare issues and the psychological wellbeing of the patients.

#### References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5<sup>th</sup> ed.). American Psychiatric Association.
- Amin, S. (2020). The psychology of coronavirus fear: Are healthcare professionals suffering from corona-phobia? *International Journal of Healthcare Management*, *13*(3), 249–256. https://doi.org/10.1080/20479700.2020.1765119
- Bavel, J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., Druckman, J. N., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., Kitayama, S., ... Willer, R. (2020). Using social and behavioral science to support COVID-19 pandemic response. *Nature Human Behaviour*, 4(5), 450-471. https://doi.org/10.1038/s41562-020-0884-z
- Beck, J. S., & Beck, A. T. (1995). Cognitive therapy: Basics and beyond. Guilford Press.
- Bennett, J. (1998). Fear of Contagion. *Advances in Nursing Science*, 21(1), 76–87. https://doi.org/10.1097/00012272-199809000-00008
- Burns, S. Z., & Soderbergh, S. (2011). Contagion [Motion Pictures]. Warner Bros.
- Casanova, M., Bagliacca, E. P., Silva, M., Patriarca, C., Veneroni, L., Clerici, C. A., Spreafico, F., Luksch, R., Terenziani, M., Meazza, C., Podda, M., Biassoni, V., Schiavello, E., Chiaravalli, S., Puma, N., Bergamaschi, L., Gattuso, G., Sironi, G., Massimino, M., & Ferrari, A. (2020). How young patients with cancer perceive the COVID-19 (coronavirus) epidemic in Milan, Italy: Is there room for other fears? *Pediatric Blood & Cancer*, 67(7). https://doi.org/10.1002/pbc.28318
- Davey, G. C., & Levy, S. (1998). Catastrophic worrying: Personal inadequacy and a perseverative iterative style as features of the catastrophizing process. *Journal of Abnormal Psychology*, 107(4), 576-586. https://doi.org/10.1037/0021-843X.107.4.576
- Douglas, M., & Wildavsky, A. (1983). Risk and culture: An essay on the selection of technological and environmental dangers. University of California Press.
- Dryhurst, S., Schneider, C. R., Kerr, J., Freeman, A. L. J., Recchia, G., van der Bles, A. M., Spiegelhalter, D., & van der Linden, S. (2020). Risk perceptions of COVID-19 around the world. *Journal of Risk Research*, 23(7–8), 994–1006. https://doi.org/10.1080/13669877.2020.1758193
- Goffman, E. (1984). Stigma: Notes on the management of spoiled identity. In A. Blaikie, (Ed). *The body: Critical concepts in sociology* (1<sup>st</sup> ed., pp. 11-56.). Psychology Press.
- Greenberg, J. (2012). Terror management theory: From genesis to revelations. In P. R. Shaver & M. Mikulincer (Eds.), *Meaning, mortality, and choice: The social psychology of*

- *existential concerns* (pp. 17–35). American Psychological Association. https://doi.org/10.1037/13748-001
- Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. In *Advances in experimental social psychology* (Vol. 29, pp. 61-139). Academic Press.
- James, R. K., & Gilliland, B. E. (2012). Crisis intervention strategies. Nelson Education.
- Joffe, H. (2003). Risk: From perception to social representation. *British Journal of Social Psychology*, 42 (1), 55–73. https://doi.org/10.1348/014466603763276126
- Kasperson, R. E., Renn, O., Slovic, P., Brown, H. S., Emel, J., Goble, R., Kasperson J. X., & Ratick, S. (1988). The social amplification of risk: A conceptual framework. *Risk Analysis*, 8(2), 177-187. https://doi.org/10.1111/j.1539-6924.1988.tb01168.x
- Li, Q., Guan, X., Wu, P., Wang, X., Zhou, L., Tong, Y., Ren, R., Leung, K., Lau, E., Wong, J. Y., Xing, X., Xiang, N., Wu, Y., Li, C., Chen, Q., Li, D., Liu, T., Zhao, J., Liu, M., Tu, W., ... Feng, Z. (2020). Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. *The New England Journal of Medicine*, 382(13), 1199–1207. https://doi.org/10.1056/NEJMoa2001316
- Leiserowitz, A. (2006). Climate change risk perception and policy preferences: The role of affect, imagery, and values. *Climatic Change*, 77 (1-2), 45–72. https://doi.org/10.1007/s10584-006-9059-9
- Loewenstein, G. F., Weber, E. U., Hsee, C. & Welch, N. (2001). Risk as feelings. *Psychological Bulletin*, 127 (2), 267–286. https://doi.org/10.1037/0033-2909.127.2.267
- Lum, L. H. W., & Tambyah, P. A. (2020). Outbreak of COVID-19—an urgent need for good science to silence our fears? *Singapore Medical Journal*, 61(2), 55-57. https://doi.org/10.11622/smedj.2020018
- Martz, E. (2004). Death anxiety as a predictor of posttraumatic stress levels among individuals with spinal cord injuries. *Death Studies*, 28(1), 1-17. https://doi.org/10.1080/07481180490249201
- Meisenhelder, J. B., & LaCharite, C. (1989). Fear of contagion: The public response to AIDS. *Image: The Journal of Nursing Scholarship*, 21(1), 7-9. https://doi.org/10.1111/j.1547-5069.1989.tb00089.x
- Menzies, R. E., & Dar-Nimrod, I. (2017). Death anxiety and its relationship with obsessive-compulsive disorder. *Journal of Abnormal Psychology*, 126 (4), 367–377.https://doi.org/10.1037/abn0000263
- Menzies, R. E., Sharpe, L., & Dar-Nimrod, I. (2019). The relationship between death anxiety and severity of mental illnesses. *British Journal of Clinical Psychology*, 58(4), 452-467.https://doi.org/10.1111/bjc.12229

- Menzies, R. E., Sharpe, L., & Dar-Nimrod, I. (2021). The effect of mortality salience on bodily scanning behaviors in anxiety-related disorders. *Journal of Abnormal Psychology*, 130(2), 141–151. https://doi.org/10.1037/abn0000577
- Patton, M. Q. (2002). Qualitative research & evaluation methods. SAGE.
- Rogers, R. W. (1983). Cognitive and psychological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. T. Cacioppo & R. E. Petty (Eds.), *Social psychophysiology: A sourcebook* (pp. 153-176). Guilford Press.
- Ropeik, D., & Gray, G. M. (2002). Risk: A practical guide for deciding what's really safe and what's dangerous in the world around you. Houghton Mifflin Harcourt.
- Sjoberg, L. (2002). Are received risk perception models alive and well? *Risk Analysis*, 22 (4), 665–669. https://doi.org/10.1111/0272-4332.00058
- Slovic, Paul, B. Fischhoff, & S. Lichtenstein. (1982). Why study risk perception? *Risk Analysis*, 2 (2), 83–93. https://doi.org/10.1111/j.1539-6924.1982.tb01369.x
- Slovic, P. (2010). The feeling of risk: New perspectives on risk perception. Routledge.
- Stangl, A. L., Earnshaw, V. A., Logie, C. H., van Brakel, W., Simbayi, L. C., Barré, I., & Dovidio, J. F. (2019). The health stigma and discrimination framework: A global, crosscutting framework to inform research, intervention development, and policy on health-related stigmas. *BMC Medicine*, *17*(31). https://doi.org/10.1186/s12916-019-1271-3
- Stock, L., Brown, M., & Bradley, G. (2020). First Do No Harm With COVID-19: Corona collateral damage syndrome. *Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health*, 21(4), 746-747. https://doi.org/10.5811/westjem.2020.5.48013
- Strachan, E., Schimel, J., Arndt, J., Williams, T., Solomon, S., Pyszczynski, T., & Greenberg, J. (2007). Terror mismanagement: evidence that mortality salience exacerbates phobic and compulsive behaviors. *Personality and Social Psychology Bulletin*. 33(8), 1137–1151. https://doi.org/10.1177%2F0146167207303018
- Su, S., Wong, G., Liu, Y., Gao, G. F., Li, S., & Bi, Y. (2015). MERS in South Korea and China: a potential outbreak threat? *The Lancet*, *385*(9985), 2349-2350. https://doi.org/10.1016/S0140-6736(15)60859-5
- Templer, D. I. (1970). The construction and validation of a Death Anxiety Scale. *The Journal of General Psychology*, 82(2), 165-177. https://doi.org/10.1080/00221309.1970.9920634
- van der Linden, S. (2015). The social-psychological determinants of climate change risk perceptions: Towards a comprehensive model. *Journal of Environmental Psychology*, 41, 112–124. https://doi.org/10.1016/j.jenvp.2014.11.012

- van der Linden, S. (2017). Determinants and measurement of climate change risk perception, worry, and concern. In M. C. Nisbat, M. Schafer, E. Markowitz, S. Ho., O'Neill & J. Thaker (Eds.), *Oxford Research Encyclopedia of Climate Science*. Oxford University Press. https://doi.org/10.2139/ssrn.2953631
- Wang, C., Horby, P. W., Hayden, F. G., & Gao, G. F. (2020). A novel coronavirus outbreak of global health concern. *The Lancet*, 395(10223), 470-473. https://doi.org/10.1016/S0140-6736(20)30185-9
- Wåhlberg, A. E. (2001). The theoretical features of some current approaches to risk perception. *Journal of Risk Research*, 4 (3), 237–250. https://doi.org/10.108 0/13669870152023791
- Wildavsky, A., & Dake, K. (1990). Theories of risk perception: Who fears what and why? *Daedalus*, 119(4), 41-60. http://www.jstor.org/stable/20025337

#### **Contribution of Authors**

Sr. No.	Author	Contribution
1.	Rubina Kauser	Introduction, literature review, methodology, analysis and discussion
2.	Azher Hameed Qamar	Conceptualization, analysis and discussion