The Fear of Covid-19 With Role of Avoidance Behavior and Self-Resilience

Jawad Iqbal [*]   Muhammad Imran [†]

Abstract: *Studies conducted in the field of resilience have proven the role of resilience in their clinical presentations, but few studies investigated the relationship between resilience and pain-related fear. However, there are limited studies to investigates the moderating role of self-resilience along with mediating role of avoidance behavior in fear of COVID-19. The survey questionnaire is used to collect responses from the public of Pakistan. The questionnaire sent to respondents using google forms, WhatsApp, and Facebook. A total of five hundred (500) responses were collected for data analysis. A causal relationship has been analyzed using partial least square equation modeling (PLS-SEM). This study confirmed that in the case in fear of COVID-19, avoidance behavior enhances the level of worry, Panic, and sense of helplessness. Thus, avoidance behavior holds the potential to increase COVID-19 Fear. It is further observed that self-resilience is useful in decreasing the level of Worry and Panic spread due to COVID-19 fear which means a high level of self-resilience controls the recurrence of worry and panic when and where it appears. The result of this research identified that avoidance behavior could result in increased fear. Hence the study concluded that avoidance behaviors should be adopted under some clinical therapy to overcome the fear of related issues with certain clinical recommendations. The study further concluded that stronger self-resilience can be helpful in managing persistent fear, worry, and panic.*

Keywords: *COVID-19 Fear; Avoidance Behavior; Self-Resilience; Hypervigilance; Helplessness; Worry & Panic*

Introduction

To fight with the fear of COVID-19, now gripping the world is highly challenging. The "Fear" or type of fear cannot be explained into in public in now a day. The death rate is increasing day by day due to COVID-19. Although the death rate of under 60 is very low, each of us has family or friend in the 60 age groups which are more vulnerable. The first case of covid-19 was identified on 17th November 2019 in China. The World Health Organization has declared the outbreak a pandemic in March 2020, and it has spread to more than 200 countries with severe public health and economic consequences. As reported

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[*]Professor, School of Business, Management and Administrative Sciences, The Islamia University of Bahawalpur, Punjab, Pakistan. E-mail: Jawad.iqbal@iub.edu.pk

[†]International Senior Lecturer, School of Business Management, Universiti Utara Malaysia, Malaysia. & Assistant Professor Institute of Business Management and Administrative Science, The Islamia University of Bahawalpur, Pakistan E-mail: muhammad_imran@iub.edu.pk

by World Health Organization, till August 26, 2021, there are 213 050 725 confirm cases and 4 448 352 deaths worldwide (WHO, 2021).

It has been feared that the true number of cases all over the world is likely to be at the higher side as reported till now and this is because of the lack of testing capacity in the developing and underdeveloped countries. One of the example in the developing world, as reported by BBC that up till now four million tests have been performed in the population of 220 million people in Pakistan (BBC, 2020), therefore, implementation of preventative measures is vital, as the richer countries in Europe and US are struggling to handle the outbreak, with advanced health care facilities. The situation in underdeveloped and developing countries could be worsening. People are still confused 'how the disease could be so deadly', in such a short span. Everyone is terrified.

However, a joint exertion by clinical and mental medical care experts may lead to a superior result for the whole populace influenced. In fact, literature with respect to past infection episodes has just underlined the function of fear and its negative psychosocial outcomes in compounding the harm of an irresistible sickness (Pappas, Kiriaze, Giannakis, & Falagas, 2009). Frequently energized by sentiment features in the broad communications, fear can carry individuals to sway among refusal and phobia, while additionally disparaging residents racially saw just like the wellspring of the infection (Falagas & Kiriaze, 2006).

The scope of the study is to explore Impact of Self Resilience and Avoidance behavior on psychological factors of fear of COVID-19. The study is conducted in six months duration. The respondents of this study are public of Pakistan. This study focuses on avoidance behavior inculcated in lives of people after the aftermath of COVID-19 and how they are dealing with this problem.

Literature Review

Fear of COVID 19

Fear has a strong reaction at the time when people surrounded by some emergencies such as war, terror attack or some epidemic or pandemic outbreak etc. Fear is also visible in non-dangerous events as well (Grassini, Holm, Railo, & Koivisto, 2016). It is a natural reaction to certain threat (perceived or real). Usually its duration is not longer, however, in some cases like diseases, its duration can be prolonged, and people can stick with it and some time it can affect their eating and sleeping habits and affect the power to concentrate and sometimes could be life threatening, thus creates panic, anger and even feeling of helplessness (Yıldırım & Arslan, 2020).

The concept of fear is an unreceptive situation in which emotive avoidance is being done for stimuli. On the other hand, fear of COVID-19 create a protective behaviour among peoples which can affect their physical and psychological health (Perin et al., 2015). In other view, the fear can be beneficial as well if public should engage in proactive behaviour against COVID-19, but the extreme level of fear can be effect the psychological and psychical health at individual and societal level (Garfin, Silver, & Holman, 2020).

However, there are limited studies have investigated the COVID-19 fear impact on human psychological and behaviour change (Yıldırım, Arslan, & Özaslan, 2020). In respect

of empirical studies, according to Short et al. (2019) that people who have higher level of COVID fear reported higher mental disorder than who has low level of COVID-19 fear. The higher level of COVID-19 fear can be cause for various mental issues such as anger, insomnia, panic and worry, hopelessness, hyper vigilance, depression, anxiety etc (Shigemura, Ursano, Morganstein, Kurosawa, & Benedek, 2020). Therefore, people become overwhelmed by this situation and resultantly try to avoid such circumstances which make them scared and helpless.

Fear of COVID-19 and Worry & Panic

Responding COVID-19 positively can reduce the traumatic stress by taking ourselves to self-quarantine or self-isolation through social distancing to avoid coronavirus spread However, this may increase loneliness, worry and depression (Starcevic, Schimmenti, & Billieux, 2020). Along with worry and depression, panic is also increasing with the spread of COVID-19 due to multiple reasons. When one overtaken by the sensation spread by media, fear will take over. Horror stories presented on media may fuel up fear and anger. This COVID-19 fear situation developing the symptoms of psychological including worry, panic, anxiety and other related risks. Further, Cai et al. (2020) stressed that worry, panic, anxiety and other mental related disorder symptoms derived from high level of COVID-19 fear, workload and negative media news etc. Moreover, most recent reports are also showing the drastic increasing 14.5% in anxiety, 8.9% in depression, 6.6% in stress and 7.7% in clinical concern. Another study reported that the high level of worry, anxiety, depression in daily life due to COVID-19 fear (Kwok et al., 2020).

Therefore, based on above discussion the following hypothesis proposes:

H1: The fear of COVID-19 causes high level of Worry and Panic in public of Pakistan.

Fear of COVID-19 and Feeling Helplessness, Hyper Vigilance

Although it is frightening as this has never been happened in our lifetime and it is human to be worried. People are worried about their health and feeling helpless. In these states of affairs, it is logical to understand the fear spreading rapidly with the increasing rate of death creating worries, feeling of helplessness and hyper vigilance to health (Lifshin, Mikulincer, & Kretchner, 2020). In the context of COVID-19, people who believe that they cannot prevent themselves and others from being infected might feel less guilty about not following safety guidelines (e.g., maintaining social distance, wearing a mask), since being helpless diminishes their personal responsibility for others' well-being. This study proposes that feelings of helplessness in face of the COVID-19 pandemic (believing that one has nothing to do to prevent oneself from being infected with the virus) may serve a protective psychological function against fear. However, very low degrees of helplessness against COVID-19 fear may also provide people with psychological security and reduce anxiety like very high degrees of helplessness. Furthermore, feeling helplessness in face of COVID-19 fear may only provide a sense of security when people are convinced that there isn't anything that they can really do, but not when they feel moderately helpless. On the

other side, hypervigilance, for example, can arise because of COVID-19 fear and anxiety and, in severe cases, result in post-traumatic stress disorder (PTSD) and/or depression (Perin et al., 2015). Resultantly, certain behaviors have been visible among the people such as feeling helplessness and hyper vigilance.

This study incurs following hypotheses:

H2: The fear of COVID-19 causes feeling helplessness in public of Pakistan.

H3: The fear of COVID-19 causes Hyper Vigilance in public of Pakistan.

Fear of COVID-19 and Avoidance Behavior

Fear-avoidance models suggest that fear develops the avoidance behavior (Rachman, 1998) especially in life threatening situations. Avoidance Behavior is considered as safety-seeking behavior, which results in range of actions envisioned to avoid, defuse or neutralize a feared effect (Cuming et al., 2009; Deacon & Maack, 2008). This behavior assumed that the measures taken to keep oneself safe are essential to reduce threat and are also necessary for survival and well-being. Moreover, this is an individual attitude to adopts the strict, constant, and continues manner to face the negativity and also related with various psychological issues. This idea includes the different strategies the of avoidance behaviour such as distraction, denial, inhibition, elimination of negative experiences, these strategies have been neglected by the public in long run, which can increase their problems as well. However, the expected avoidance behaviour due to COVID-19 fear could play the important role in emergence of many psychological issues in this all process (Taylor, Landry, Paluszek, & Asmundson, 2020).

Initially it was assumed that fear stimulates avoidance behavior, which reduces fear; however, in a study conducted by Volders, Boddez, De Peuter, Meulders, and Vlaeyen (2015), it has been suggested that engaging in fear avoidance may unexpectedly increase fear. Although it is difficult to come out of this phase, but there are different ways that can be helpful in this situation. One should learn to feel less fearful and less threatened and to learn how to survive with fear so that it doesn't stop people from living, therefore, avoidance behavior can be considered as an adaptive response to such traumatic situations.

H4: The fear of COVID-19 causes avoidance behavior in public of Pakistan.

Furthermore, there are few studies have revealed that avoidance behaviour increased the worry & panic and feeling of helplessness (Taylor et al., 2020). Moreover, the avoidance behavior responses that adults will develop in the process of COVID-19 will also have negative effect on psychological issues and also developed the new symptoms due to COVID-19 fear. The people who are fearful due to COVID-19 are more likely to experience anxiety, panic, helplessness, depression and while in isolation and are more likely to engage in extreme avoidance behaviour. However, there are need to expose the reality and help to public about realistic beliefs about COVID-19. Therefore, the following hypothesis are proposed:

H5: Avoidance behavior mediates the relationship between worry & panic and fear of COVID-19.

H6: Avoidance behavior mediates the relationship between feeling helplessness and fear of COVID-19.

Self-Resilience and Fear of COVID-19

According to McAdam-Crisp (2006), resilience is "an individual's ability to 'bounce back' or return to a normal state following adversity." Although, Harvey (2007) found resilience associated with an event having less or no deadly impact, however, (van Vliet, Meulders, Vancleef, & Vlaeyen, 2018) in their study conceptualized resilience as a personality trait linked with helplessness. They examined resilience in terms of risk factors in relation with the causes related to abnormal post-traumatic stresses.

Resilience, as defined by Newton-John, Mason, and Hunter (2014) is the ability to survive with adverse conditions. The behavior has been studied extensively with reference to stress and adverse condition. One of the study concluded that it is not necessary that every on facing adverse condition undergoes adverse psychological outcomes. There are people who despite of adversities move ahead positively (Fitzpatrick, 2010). Therefore, resilience can be considered as a complex process of maintaining 'stable equilibrium' for a longer period despite of having continuous adversity. In connection with the longer pain experience, resilience could not be considered as the ability to bounce back after facing initial set back, rather it is the ability to work continually at the time of continual setbacks. Among other dispositional factors, self-reliance is the most important. As defined by Sturgeon and Zautra (2010), in place of relying on others, self-reliance is one's ability to employ his own resources. Therefore, in a situation of epidemic or pandemic, self-resilience includes developing self-care plans instead of waiting for other's help.

Studies conducted in the field of resilience have proven the role of resilience in their clinical presentations, but few studies investigated the relationship between resilience and pain related fear and limited studies investigated the role of resilience in Covid-19 fear (Yıldırım & Arslan, 2020). Studies so far have identified that high level of resilience is linked with pain management, good mood and active participation in different activities (Peters, 2011). Findings from these studies recommended a close association amongst resilience and different types of positive reactions, like active management, fear related behaviors, reduced dependency on medicine and health-care and social and occupational functioning (Arslan, Yıldırım, Tanhan, Buluş, & Allen, 2021; Karoly & Ruehlman, 2006). Therefore, this study is conducted to identify the fear factors among public due to Covid-19 fear and study the mediating role of avoidance behavior and moderating role of self-resilience. This study, therefore, focused to test the role of resilience in weakening the relationship between Covid-19 fears and psychological factors such as worry & panic, helpless, hyper vigilance, avoidance behavior.

The current study is the first to test the hypothesis that:

H7: High self-resilience moderates the relationship between fear factors and Covid-19

related fear.

Figure 1
Conceptual Framework
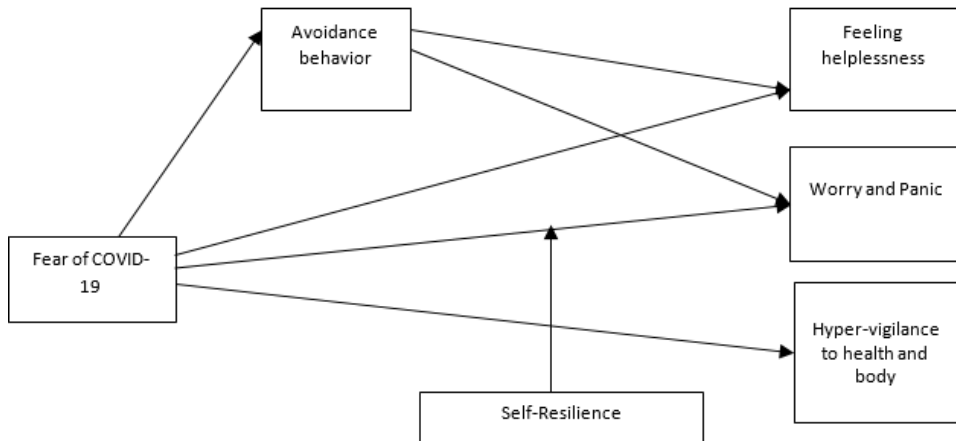
Methodology

The survey questionnaire is used to collect the responses from the public of Pakistan. The snowball sampling technique has been used to send the questionnaire to respondents using google forms, WhatsApp, and Facebook. Basically, snowball used when the target population is not readily available and difficult to approach. The total five hundred (500) responses were collected for data analysis, which is sufficient to represent the target populations. As according to Sekaran and Leong (1992) the sample size larger than 30 and less than 500 are appropriate.

The scale of the study is taken from past studies, such as the questionnaire of fear is adapted from the study of Champion et al. (2004). In addition, the scale of Schmidt, Lerew, and Trakowski (1997) study is adopted for hyper vigilance construct. The instrument of helplessness and resilience is adapted from Evers et al. (2001); Smith et al. (2008) studies. The scale of worry and panic is adapted from the study of Kawachi, Sparrow, Spiro III, Vokonas, and Weiss (1996). The questionnaire of avoidance behavior is developed from the studies of Landers, Durand, Powell, Dibble, and Young (2011).

The data analysis has been conducted to using the partial least square equation modeling (PLS-SEM). The PLS-SEM analysis were done in statistical software name, SmartPLS-3.

Data Analysis and Findings

In respect of descriptive statistics, gender, age, and education were taken as demographic of the study. In this current study 73.4% males and 26.6% females are participated, moreover, 59.6% respondents from 20-30 years age group, 28.2% from 31-40 age group and 10.6% from 41-50 age groups and only 1.6 % respondent were from above 50 years group. In term of education 45% respondents having MPhil education, 32.2% master, 11.1% PhD, 8.7% undergraduate respondents.

In respect of inferential statistics, partial least square structural equation modeling is adopted to draw the results. PLS-SEM is the combination of confirmatory factor analysis (CFA) and multiple regression. Accordingly, PLS-SEM has divided in two steps approaches, which is measurement model and structural model. As measurement model is validated the CFA and on the other hand, structural model is drawn the result through multiple regression techniques.

Measurement Model

In measurement model, the reliability of the data has been calculated using Cronbach's Alpha, composite reliability, and average variance extract. The values of Cronbach's alpha and composite reliability should be equal or more than 0.70 (Hair Jr, Hult, Ringle, Sarstedt, Danks, & Ray, 2021). Moreover, the value of average variance extract should be equal or more than 0.50. Hence, the current study achieved the threshold values; the result can be seen in table (1) and figure (2).

Table 1
Reliability

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Avoidance Behavior	0.831	0.876	0.511
Covid.19 Fear	0.917	0.933	0.635
Helplessness	0.880	0.908	0.622
Hyper vigilance	0.894	0.911	0.534
Self-Resilience	0.629	0.800	0.573
Worry & Panic	0.946	0.953	0.610

Furthermore, the Heterotrait-Monotrait Ratio of Correlations (HTMT) criterion is used to validate the discriminant validity of two or more constructs. The values of HTMT criterion should not be more than 0.90 (Hair Jr, Hult, Ringle, & Sarstedt, 2021), hence, the current study achieved the discriminant validity. The all values of HTMT have recorded less than 0.90, the result can be seen in table (2).

Table 2

Discriminant validity

Constructs	Avoidance Behavior	Covid.19 Fear	Helplessness	Hyper vigilance	Self Resilience	Worry & Panic
Avoidance Behavior						
Covid.19 Fear	0.444					
Helplessness	0.351	0.449				
Hyper-vigilance	0.338	0.339	0.222			
Self-Resilience	0.419	0.474	0.537	0.304		
Worry & Panic	0.662	0.614	0.546	0.415	0.632	

Structural Model

After the successful validation of measurement model, the structural model is evaluated. In this process, the bootstrapping has run at 5000 sub-samples to draw the decision. The hypotheses are accepted or rejected if their t-values found less than 1.65 i.e., at 0.10 significance level. However, the results of hypotheses can be seen in table 3 and figure 3. Furthermore, the result of hypothesis regarding moderation role of self-resilience on the relationship between covid-19 fear and worry & panic can be seen in table 5. Moreover, the mediatory hypothesis result can also be seen in table 4, which shows the mediation role of avoidance behavior between covid-19 fear and helplessness, worry & panic.

Table 3

Hypothesis results

Hypothesis	Beta	Std. Dev	T Statistics	P Values	Decision
H1: Covid.19 Fear ->Worry & Panic	0.495	0.041	12.036***	0.000	Accepted
H2: Covid.19 Fear ->Helplessness	0.413	0.049	8.372***	0.000	Accepted
H3: Covid.19 Fear ->Hyper-vigilance	0.348	0.034	10.219***	0.000	Accepted
H4: Covid.19 Fear ->Avoidance Behavior	0.394	0.045	8.695***	0.000	Accepted

Note: p<0.10* p<0.05** p<0.01***

Table 4

Mediation results

Hypothesis	Beta	Std. Dev	T Statistics	P Values	Decision
H5: Covid.19 Fear ->Avoidance Behavior ->Worry & Panic	0.146	0.023	6.433***	0.000	Accepted
H6: Covid.19 Fear ->Avoidance Behavior ->Helplessness	0.07	0.022	3.137***	0.001	Accepted

Note: p<0.10* p<0.05** p<0.01***

Table 5

Moderation results

Hypothesis	Beta	Std. Dev	T Statistics	P Values	Decision
H7: Self-Resilience * Covid.19 Fear ->Worry & Panic	-0.068	0.040	1.696*	0.045	Accepted

Note: p<0.10* p<0.05** p<0.01***

Discussion of the Results

The primary purpose of this study was to identify the fear factors and to identify the role of Avoidance Behavior and Self-Resilience. A survey questionnaire was used as a

self-assessment tool having comprehensive psychometric properties to measure avoidance behavior and self-resilience due to Covid-19 Fear. Results showed the evidence for reliability and validity of questionnaire. Moreover, these results further recommended that this questionnaire may possess the utility to give a clear picture regarding the influence of self-resilience and avoidance behavior on a people's life.

This study investigated the mediating effect of fear avoidance behavior. Previously it has been concluded that the avoidance of some fear creating stimulus reduced the preemptive fear, and increased the fear in the absence of earlier avoidance behavior (van Vliet et al., 2018). However, as hypothesized, the results from our study confirmed that in case of Covid-19, fear avoidance behavior enhances the level of worry, Panic and sense of helplessness and this finding is in line with the findings of previous studies which were conducted to investigate the anxiety disorders, and observed a bidirectional association between avoidance and fear (Deacon & Maack, 2008; Gangemi, Mancini, & van den Hout, 2012; Olatunji, Etzel, Tomarken, Ciesielski, & Deacon, 2011). Thus, intervention of avoidance behavior holds the potential to increase Covid-19 Fear (Table-5).

This study also conducted to find out whether self-resilience factor can be applied to overcome the fear spread among the people all over the world due to Covid-19. In addition, this study also investigated whether self-resilience could help people in reducing panic or worry. In the recent studies, no evidence was published to study the moderating effect of self-resilience with Covid-19 Fear. Fear shares some features with worry and Panic, hyper vigilance to health and body and helplessness that can disturb the psychological well-being (Table-3). On the other hand, it is observed that self-resilience is useful in decreasing the level of Worry and Panic spread due to Covid-19 fear (Table-4). This shows that high level of self-resilience factor gets control over the recurrence of worry and panic when and where it appears.

Conclusion of the Study

The COVID-19 is an unprecedented time for the people all over the world. People are facing enormous disruption to their lives. They are experiencing worry, panic, and helplessness, and this is the result of Covid-19 fear which can be considered as fear of death, or a fear of their relative's death. People are terrified due to the fear of placing themselves at high risk or at the increased exposure to Corona viral infection. This is highly concerning and is resulted in increasing the irritability, panic, anger and feeling of helplessness among the people. Result of this research identified that avoidance behavior will be resulted in increased fear. It was also observed that avoidance behavior by itself can increase fear among the people, rather resulting in fear reduction. Interestingly, it was observed that the Covid-19 related fear among the people involved in avoidance behavior was already at the highest level at the time when they came to know that avoidance is possible. Theory of self-Resilience recommended that this variable is a key in overcoming the impact of fear on worry and panic; the results from this confirmed the hypothesis of significant role of self-resilience, as participant with high self-resilience are more likely to be working despite of fear, panic, and worry.

Therefore, it is concluded that stronger self-resilience can be helpful in managing persistent fear, worry and panic. The current research also supported that despite of endless treatment to Corona patients, strategies to foster self-reliance should also be adopted, as these strategies have been linked with better adjustment to Covid-19 fear. Although the role of self-resilience has not been tested using this dimension, but nevertheless, it can have important impact over patient's recovery. The data further suggested that self-resilience techniques can be helpful in clinical practices, where intervention techniques are used to treat the fear and pain effected patients. There is a need of re-directed treatment by developing resilient behavior that strengthens the adaption of the adversity of different fears.

Implication of the Study

It can, therefore, be concluded that avoidance behaviors should be adopted under some clinical therapy to overcome the fear related issues with certain clinical recommendations. Although our study identified the role of self-resilience and avoidance behavior however, clinical trial should also be used in future to verify the effectiveness of these strategies in reducing fear, worry and panic associated with Corona Virus related infection distress.

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