

Human Life during a Pandemic: Exploring Intercorrelation between Fear of COVID-19 and Cognitive Judgments of Satisfaction

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Received: May 17, 2022

Accepted: June 20, 2022

Online Published: June 30, 2022

doi:10.5539/ijps.v14n3p11

URL: <https://doi.org/10.5539/ijps.v14n3p11>

Abstract

The cognitive judgment of satisfaction is suggested to be influenced by self-perceived levels of fear of COVID-19. However, limited research has been conducted as to the effects of fear of COVID-19 on the internal structure of the cognitive judgments of satisfaction. This study aimed to investigate the intercorrelation that existed between fear of COVID-19 and cognitive judgments of satisfaction via taking a sample of the population in the Kurdistan region of Iraq ($n = 214$). The findings suggested that there was a significant correlation between fear of COVID-19 and cognitive judgments of satisfaction. Accordingly, the results indicated that they share a significant negative association. Furthermore, results revealed that the level of fear that an individual experience during the COVID-19 pandemic significantly impacts on different types of life dissatisfaction. Therefore, individuals with different types of dissatisfaction in life (i.e., extremely dissatisfied, dissatisfied, and slightly dissatisfied) showed significantly higher levels of fear of COVID-19 than individuals with different types of life satisfaction.

Keywords: fear of COVID-19, cognitive judgements of satisfaction, life satisfaction

1. Introduction

Coronavirus infection (COVID-19) is a disease that is caused by a new strain of coronavirus called SARS-CoV-2. Since its emergence in September 2019, COVID-19 has attracted a lot of attention, and many researches have been done on it all over the world. The focus of this research was on two areas. The first line was focused on developing a novel treatment for an increased number of infected people (Dong, Hu, & Gao, 2020), while the second line focused on developing a new vaccine to reduce the spread of this virus (Wang et al., 2020).

1.1 A Brief Overview of the Issue

Even though countries around the world imposed specific restrictions to slow the virus's spread, reports suggested that the COVID-19 pandemic is associated with increased mental health (Chandu, Marella, Panga, Pachava, & Vadapalli, 2020) and well-being issues. According to a recent study, during the COVID-19 pandemic, approximately four out of every ten adults in the United States of America experienced anxiety or depression disorder symptoms (Panchal, Kamal, Cox, & Garfield, 2021). However, both infected and uninfected people around the world have paid little attention to this aspect of the pandemic.

The research suggests that the COVID-19 pandemic could contribute to increasing levels of psychological problems in several ways. One of these is the impact of increased stress levels because of COVID-19 fear (Mayer, Etagar, Shiffman, & Lurie, 2020; Bao, Sun, Meng, Shi, & Lu, 2020; Chandu et al., 2020). As a result, an increased rate of infection and mortality has been noticed as a result. Thus, individuals across the globe have begun to worry about COVID-19 (Ahorsu et al., 2020).

Riezler (1944, p. 489) emphasised that an individual's fear is "fear of something or for something: of illness... for his health...". Within this context, fear of COVID-19 is an expected consequence of this pandemic because, as Ahorsu et al. (2020) suggested, fear can be considered a natural characteristic of infectious disease. However, Kagan and Schulkin (1995) noted that fear can lead to different behavioural and physiological reactions among individuals. As far as the physical impacts of fear is concerned, there is a possibility that fear could amplify the negative impact of the disease itself (Ahorsu et al., 2020). Furthermore, fear may harm the psychological aspects

of the organism. In this context, Kagan and Schulkin (1995) emphasise that some conditions, such as thoughts, could lead to some abnormal behaviours. Likewise, Ahorsu et al. (2020) suggested that irrational responses can be seen as a psychological consequence of fear when individuals deal with COVID-19. However, there is a paucity of information on the possible interactions between COVID-19 self-perceived levels of fear and satisfaction judgments.

1.2 The Importance of the Problem

The available literature has primarily focused on investigating the underlying factors of COVID-19's emergence and spread. As a result, little research has been done on the psychological effects of COVID-19 fear on human life during a pandemic, particularly in terms of satisfaction judgments. The examination of the relationship between COVID-19 fear and life satisfaction provides an opportunity to learn more about the potential impact of the COVID-19 pandemic on self-perceived levels of fear in individuals. Theoretical and empirical underpinnings relevant to the role of fear in terms of human life during a pandemic can be clarified with this knowledge. As a result, the goal of this study is to investigate the relationship between COVID-19 fear and satisfaction judgments.

1.3 A Summary of the Relevant Literature

The first consideration here is given to fear. As a response to a certain stimulus, fear could occur as an expectation of a threat perceived as a risk to oneself (Loughan & Jackson-Smith, 2018). Research suggests that the COVID-19 pandemic may lead to a type of mysterious threat that arouses anxieties among individuals (Coelho, Suttiwan, Arato, & Zsido, 2020). In this context, researchers believe that a lack of knowledge and the struggle to get more information about different variants of this virus could force individuals to feel uncertain threats, which develops into a chronic and burdensome condition (Mertens, Gerritsen, Duijndam, Saleminck, & Engelhard, 2020). Consequently, the threat that accompanies COVID-19 is referred to as "fear of COVID-19."

The modern use of the term "fear of COVID-19" coincided with the development of the Fear of COVID-19 Scale (Ahorsu et al., 2020). Fear of COVID-19 may become more burdensome as a form of apprehension about the unknown (Mertens et al., 2020). In addition to the fear of the unknown, it is assumed that this type of fear recruits anxiety that accompanies situations that are unpredictable and uncontrollable (Coelho, Suttiwan, Arato, & Zsido, 2020). Consequently, during a pandemic, COVID-related fears could increase the level of psychological problems among healthy individuals as well as those with pre-existing psychiatric disorders (Shigemura et al., 2020). During the Ebola outbreak, for example, it was discovered that some fear-related behaviours had a negative impact on the population's suffering and psychiatric symptom rates (Shultz et al., 2016). However, there is a lack of understanding about the interactions between self-perceived levels of fear in response to the COVID-19 pandemic and satisfaction judgments.

The attention of second consideration is focused attention on life satisfaction. Within the literature on this topic, "life satisfaction" refers to "a subjective assessment of the quality of one's life" (Sousa & Lyubomirsky, 2001, p. 667). Additionally, this concept has been considered a cognitive element of subjective well-being (SWB) as a broader construct (Diener, Suh, Lucas, & Smith, 1999). Diener (2022) suggested that the SWB has been used to label different types of happiness when taken together. Accordingly, this study will be concerned with life satisfaction as a cognitive judgement of satisfaction.

Although the early usage of the term "life satisfaction" was in the 19th century, the modern emergence of this concept as a cognitive judgement of satisfaction is linked with the introduction of the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). Accordingly, the SWLS was designed to assess cognitive judgments of satisfaction as one of the major components of subjective well-being (Pavot, Diener, Colvin, & Sandvik, 1991). Furthermore, Diener (2021) emphasised that life satisfaction can be influenced by both internal and external factors. For example, research has suggested that both physical and mental health may have an impact on cognitive judgments of satisfaction (Betuell, 2006). In this context, it is possible to assume that the cognitive judgments of individuals regarding satisfaction during a pandemic can be influenced by fear of COVID-19. However, more research into the possible interactions between COVID-19-related fear and life satisfaction as a cognitive component of the SWB is urgently needed due to a lack of knowledge in this area.

1.4 The Rationale for the Current Study

The rationale for this study is that there is currently limited information on how fear of COVID-19 affects life satisfaction. This will help us understand how COVID-related fears may influence human life satisfaction during an ongoing pandemic. The current study is particularly interested in determining how self-perceived levels of COVID-19 fear influence cognitive judgments of life satisfaction. As a result, the goal of this study is to look

into the connections that exist between COVID-19 fear and satisfaction judgments. This will be achieved by examining the relationships between COVID-19 fear (as measured by the FCV-19S) and satisfaction judgments (as assessed by the SWLS).

2. Method

2.1 Participants

The present study employs data from a sample comprising 214 respondents from Kurdistan region (108 males, 103 females, and 2 third gender). The participants are in the 18 to 63 age range ($M = 30.99$ years, $SD = 10.08$). Because twenty-five people did not complete the survey, they were removed from the analysis.

2.2 Materials

Participants were asked to fill out two self-reported questionnaires one of which was on COVID-19 fear and the other one was life satisfaction:

2.2.1 The Fear of COVID-19 Scale

The Fear of COVID-19 scale (FCV-19S; Ahorsu et al., 2020) is a 7-item self-reported measure designed to assess self-perceived levels of fear responses to the COVID-19 pandemic. Responses are graded on a 5-point Likert scale, with 1 indicating strong disagreement, 2 indicating disagreement, 3 indicating neither agreement nor disagreement, 4 indicating agreement, and 5 indicating strong agreement. The minimum score for each item is 1, and the maximum is 5. The total score ranges between 7 and 35, with a higher sum score indicating a higher fear of COVID-19. The FCV tool's Cronbach's alpha coefficient was calculated to be equal to .82 (Ahorsu et al., 2020). In the current study, the FCV showed good internal consistency, with an alpha Cronbach's coefficient of 0.76.

2.2.2 The Satisfaction with Life Scale

The Satisfaction with Life Scale (SWLS; Diener et al., 1985) is a 5-item instrument designed to assess cognitive judgments of satisfaction with one's life. Participants are required to respond on a 7-point Likert scale, whereby 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, and 7 = strongly agree. While the total score ranges from 5 to 35, "5 to 9" indicates extreme dissatisfaction; "10 to 14" indicates dissatisfaction; "15 to 19" indicates slight dissatisfaction; "20" indicates neutrality; "21 to 25" indicates slight satisfaction; "26 to 30" indicates satisfaction; and "31 to 35" indicates extreme satisfaction. The time limitation for answering the SWLS is one minute. The SWLS has been calculated to have a Cronbach's alpha of 0.87 (Diener et al., 1985). In the current study, the SWLS showed good internal consistency, with an alpha Cronbach's coefficient of 0.78.

2.3 Procedure

Being a survey administration software and part of the free, web-based Google Docs Editors suite offered by Google, Google forms was the source of the questionnaires that this study depended on for the survey.

2.4 Ethical Consent

The data collection procedures were approved by the Salahaddin University-Erbil College of Education Scientific Board. Respondents indicated their agreement on the first page of the survey participation requirement before continuing or exiting. The consent form included statements and instructions in terms of the purpose of the study.

2.5 Statistical Analysis

A variety of statistical tools were used to analyse the findings of this study. Using independent-samples t-tests, this study investigated the gender differences in COVID-19 fear were investigated. In this study, zero-order correlations were also used to look at the relationship between variables. In addition, one-way ANOVA was used to investigate the differences in COVID-19 fear. Furthermore, correlation effect sizes were calculated through using the following assumptions: $r = 0.1$, $r = 0.24$, and $r = 0.37$ for small, medium, and large sizes, respectively (McGrath & Meyer, 2006).

3. Results

3.1 Preliminary Analysis

The results of the independent-samples t-tests show that there are significant gender differences in COVID-19 fear $t(189) = -2.251$, $p = 0.026$, with female participants scoring higher fear ($M_s = 17.37$ and 14.76 , respectively)

than male participants. Furthermore, the findings indicate that growing older is linked to a fear of COVID-19, with $r(189) = -0.211, p = .004$.

3.2 Fear of COVID-19 and Satisfaction Cognitive Judgment

Table 1 shows the mean scores, standard deviations, and zero-order correlations for the FCV and SWLS. Significant correlations exist between the FCV and the SWLS, which are highlighted in **bold**. As a result, the FCV and the SWLS have a significant negative correlation, implying that the correlation has a large effect size of $r = 0.76$.

Table 1. mean scores, standard deviation, and zero-order correlations between the FCV and the SWLS ($N = 189$)

Variables	<i>M(SD)</i>	1	2
1. FCV	15.95(7.96)	1	-.765**
2. SWLS	22.16(6.53)		1

Note. FCV = Fear of COVID-19 scale (Ahorsu et al., 2020); SWLS = Satisfaction with life scale (Diener et al., 1985); *M* = Mean; *SD* = Standard Deviation; ** $p < 0.01$.

3.3 Variations in Satisfaction Cognitive Judgments

The effect of COVID-19 fear on different types of satisfaction cognitive judgments was studied using a one-way ANOVA. The findings show that fear of COVID-19 has a significant effect on different types of life satisfaction, i.e. $F(6, 182) = 252.44, p.000$.

Table 2. one-way analysis of variance of fear of COVID-19 by life satisfaction ($N = 189$)

Source	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>P</i>
Between Groups	6	10646.401	1774.400	252.443	.000
Within Groups	182	1279.261	7.029		
Total	188	11925.661			

Note. *Df* = degrees of freedom; *SS* = Sum of Squares; *MS* = Mean Square; *F* = variation between sample means / variation within the samples; $p < 0.05$.

According to a Turkey post-hoc comparison of the three groups, people who are extremely dissatisfied with their lives have a significantly higher fear of COVID-19 than people who are extremely satisfied with their lives (21.66, 8.43 min, $p = .000$). Furthermore, people who were dissatisfied with their lives had a significantly higher fear of COVID-19 (27.94, 10.71 min, $p = .000$) than people who were satisfied with their lives. Individuals with a slightly dissatisfied life have a significantly higher fear of COVID-19 (27.87, 11.51 min, $p = .000$) than those with a slightly satisfying life.

4. Discussion

The findings revealed that self-perceived COVID-19 fear has a significant negative relationship with cognitive judgments of life satisfaction. This is consistent with what the research suggests in terms of the possible influence of the COVID-19 pandemic on increasing levels of psychological problems (Mayer et al., 2020; Bao et al., 2020; Chandu et al., 2020; Ahorsu et al., 2020). A possible explanation of such a result is that COVID-19-related fears are triggering mental health conditions or exacerbating existing ones, which increasingly influence individuals' cognitive judgments of satisfaction as one of the major components of subjective well-being. For instance, during the Ebola outbreak, it was discovered that some fear-related behaviours had a negative effect on the population's suffering and psychiatric symptom rates (Shultz et al., 2016).

The unexpected finding here is what the preliminary analysis revealed, which is related to gender differences, whereby the female participants reported higher scores in their self-perceived levels of fear of COVID-19. Though such a result is consistent with the researches from the United States, Cuba, and China (Broche-Pérez, Fernández-Fleites, Jiménez-Puig, Fernández-Castillo, & Rodríguez-Martin, 2020; Fitzpatrick, Harris, & Drawve, 2020; Liu et al., 2020; Park et al., 2020), it is not consistent with research from other countries. Men with COVID-19 are more at risk for poor outcomes and death (Jin et al., 2020; Bhopal & Bhopal, 2020). An explanation of such a result is that the female gender reports greater negative emotional experiences, such as fear, more frequently (Brebner, 2003; Fischer, Rodríguez Mosquera, van Vianen, & Manstead, 2004), and with greater effective intensity (Fujita, Diener, & Sandvik, 1991).

Interestingly, the result of the preliminary analysis reveals that increasing age is related to the fear of COVID-19. This finding is in line with the fact that one of the most important factors for older people is their general health (Hunt et al., 2006). Consequently, COVID-19 as one of the risk factors for general health could increase fears among them. Furthermore, this finding is consistent with previous research in this area, which indicates that the COVID-19 pandemic caused significant fear among the elderly (Mistry, Ali, Akther, Yadav, & Harris, 2021; Barber & Kim, 2021; Villalba et al., 2020).

Furthermore, the findings suggest that fear of COVID-19 has a significant impact on life satisfaction, with different aspects across different types of cognitive judgments of life satisfaction (i.e., extremely satisfied, satisfied, slightly satisfied, neutral, slightly dissatisfied, dissatisfied, and extremely dissatisfied). For instance, the findings suggest that individuals who gain a higher fear score of COVID-19 score show higher dissatisfaction with their lives. Individuals with lower COVID-19 fear scores also have higher cognitive judgments of life satisfaction. These findings can provide evidence regarding the ability of higher degrees of self-perceived levels of fear of COVID-19 to impact specific facets of cognitive judgments of satisfaction in one's life. These findings show that higher-related COVID-19 fears tend to correlate with a broader association with various aspects of life satisfaction. These results are consistent with what research suggests regarding the possible impacts of fear of COVID-19 on reducing individuals' level of life satisfaction (Dymecka, Gerymski, Machnik-Czerwik, Derbis, & Bidzan, 2021; Isik, Ustun, Tastan, & Ustun, 2021).

However, there are some limitations to the current study. The current findings are limited by the small number of samples used, and more research is needed to replicate the study with a larger sample size and different populations. The second limitation in this case is the use of research methodology. The qualitative research method should be given more consideration in this regard.

In conclusion, the main findings suggest that higher levels of COVID-19-related fears are associated with lower satisfaction in cognitive judgments. Furthermore, the findings revealed that fear of COVID-19 could have an impact on one's cognitive judgments of satisfaction during a pandemic, with different aspects for different types of life satisfaction. Dissatisfied participants at various levels (extreme, normal, and slightly dissatisfied) tended to have higher levels of COVID-19-related fears than satisfied participants. Overall, the findings suggest that COVID-19 fear may play a role in satisfaction judgments, with different aspects for different types of life satisfaction.

Disclosure

The authors do not have any conflicts of interest to report.

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