

## Research Paper

# Corona Disease Anxiety in Teachers: The Role of Existential Thinking and Meaning in Life



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## ABSTRACT

**Background and Objectives:** The unprecedented Coronavirus disease (COVID-19) has outstandingly challenged all aspects of individual lives, especially their sources of a meaningful life and spiritual well-being. Hence, we set out to investigate the role of existential thinking and meaning in life in predicting Corona disease anxiety in teachers.

**Methods:** This was a correlational-descriptive study carried out on two hundred sixty-nine volunteers from primary school teachers who were working in 2022 in Kermanshah Province, Iran. Participants were selected by the multi-stage cluster sampling method, and they were measured by questionnaires created in Google Form, including Alipour et al.'s (2020) corona disease anxiety scale, Scherr (2006) existential thinking questionnaire, and Steger et al.'s (2006) meaning in life questionnaire. Finally, the data were analyzed by IBM SPSS software, version 27 using Pearson correlation coefficients and multiple regression analysis.

**Results:** The results showed that existential thinking ( $r=-0.640$ ,  $P<0.01$ ), as well as, meaning in life ( $r=-0.668$ ,  $P<0.01$ ) had an inverse and significant correlation with corona disease anxiety. Based on regression analysis, existential thinking ( $\beta=-0.152$ ) and, meaning in life ( $\beta=-0.329$ ) negatively and significantly predicted corona disease anxiety.

**Conclusion:** Based on the findings, it can be concluded that corona disease anxiety has a significant negative correlation with existential thinking and meaning in life. In addition, the findings of this study support the role of predictor variables in the prediction of teachers' Corona disease anxiety. Generally, 41% of the total variance of corona disease anxiety is predicted by existential thinking and meaning in life.

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## Introduction

Coronavirus disease 2019 (COVID-19) has become a mainstream global health public, especially after it was announced as a pandemic by the World Health Organization (WHO) [1]. To avoid the infection from spreading and to make sure the health of individuals, large areas of the public segment including schools were closed, and citizens were persuaded to remain at home [2]. Because of the obscure and complex nature of the infection, the COVID-19 outbreak poses a risk, not only to physical health but to mental well-being [3].

Nevertheless, anxiety is a common symptom in patients with chronic respiratory disorders such as Coronavirus, so that a new meta-analysis of the overall prevalence rate of anxiety during the COVID-19 pandemic was obtained 31.9% of 17 studies with a total sample of 63,439 participants. In short, coronary anxiety disease means anxiety caused by a coronavirus infection, which is often due to the unknown and cognitive ambiguity [4, 5].

One of the well-known approaches in psychology that has paid special attention to the concept of anxiety is the existential approach. From the perspective of this approach, anxiety arising from dangers to one's existence, such as the case with COVID-19, may cause a mindset that leads to personal growth, and in any case, if the anxiety caused by the threat of existence is not dealt with, it simply becomes a psychological anxiety, which is very disturbing [6]. In times of crisis and threat, most individuals encounter some existential anxiety, so to deal effectively, a certain way of thinking and worldview is required, one of which is existential thinking. As Shearer [7] stated, it alludes to the penchant of a person to mull over the foremost principal questions of life, such as those concerning meaning in life, purpose, loneliness, death, absurdity, and alienation. In this regard, Spinelli [8] hypothesized that existential thinking includes locking in with the ultimate concerns of the human condition and building up meaning between these issues and oneself.

One of the variables of existential psychology that became the focus of researchers again with the advent of the corona is the concept of meaning in life [9-12]. Meaning in life is a multi-dimensional construct, and a subjective state refers to a goal in life, as a belief that one's own life is valuable, meaningful, or purposeful [13]. Martelaa et al, [14] in their research for meaning in life has introduced three aspects related to three domains: Coherence (a sense of comprehensibility and one's life

making sense) falls within the domain of understanding; Purpose (a sense of core goals, aims, and direction in life) belongs to motivation domain, and significance (a sense of life's inherent value and having a life worth living) belongs to the domain of evaluation.

An overview of the literature of research conducted regarding the meaning of life in the period of the COVID-19 pandemic shows various results, including meaning in life in times of COVID-19 acts as a buffer against the stress of this period [15] and increasing the spiritual transformation and challenges of survival and semantics (related to the meaning of life). In a qualitative study on people suffering from the COVID-19 epidemic [16], the mean scores of the meaning of life were lower among the survivors of COVID-19 victims compared to the survivors of death due to biological causes [17]. In a critical article dealing with how corona affects the meaning of life, it was concluded that in the face of this tragedy, what mankind can best hope for is the continuous creation of moments of meaning in life to decrease disappointment and maintain hope [18] and meaning of life can mediate the relationship between coronavirus stress and psychological well-being [19]. In summarizing the introduction of the research in the framework of spirituality in critical conditions such as the COVID-19 pandemic, it should be stated that one of these arrangements and methods to reduce stress and anxiety is to improve spiritual health. Spiritual health is one of the four dimensions of human health, which is placed next to the physical, mental, and social dimensions and promotes general health. Spirituality at work (in this study, primary school teachers) means understanding and recognizing that the next part of employees' lives is internal, esoteric, and can be cultivated, and it is strengthened in social life by doing meaningful work [20]. In confirmation of what was said, in a study conducted by Kasapoğlu in 2022, it was shown that spirituality, self-efficacy, and COVID-19 anxiety have direct effects on hopelessness [21].

In clarifying the importance and necessity of conducting the current research and the impact of the coronavirus on teachers, it can be expressed that at the beginning of the COVID-19 pandemic, in a qualitative research method based on phenomenological design, conducted by Aytac (2021), the results indicated that some teachers' ability to use technology is inadequate and they were low in motivation to use distance education technologies. This, in turn, can affect the effectiveness of education, the sense of self-efficacy, and the academic engagement of teachers [22].

Lizana et al. (2021) in a longitudinal design carried out on a sample of 63 Chilean teachers showed that during the pandemic, teachers' scores in quality of life dropped significantly compared to the beginning of the COVID-19 pandemic. This may be due to the impact of teleworking on teacher health and teacher burnout [23].

Nevertheless, during the COVID-19 outbreak, schools are closed to control the spread of the COVID-19 pandemic. Taking after these conditions, teachers had to confront numerous issues and in this new circumstance, they required a better level of versatility. Adapting to distance or remote teaching and transition from face-to-face to online teaching was sudden and startling and placed greater demands on teachers. They had to create a new balance between jobs and life [24-26].

It should be noted that, since teachers practice their job in circumstances of constant interaction with large numbers of people, they can be considered among the population groups vulnerable to coronavirus. Hence, the psychological impact of the COVID-19 pandemic on teachers is not far from expected [27]. As specified previously, lack of adaptation to the technological environment and stress and anxiety caused by working with technology (techno-stress and techno-anxiety) were other challenges that some teachers were dealing with. Numerous teachers did not have experience and were unprecedented in the field of distance education and using educational platforms. In other words, they have low digital literacy. This issue was more intense for students and caused educational inequality since many students did not have a laptop or tablet and they had to share the same equipment with other family members [28].

In general, it can be said that anxiety is one of the foremost common disorders in numerous infectious epidemics, in addition to the severe acute respiratory syndrome. Given the harm that coronavirus can do, and current literature has shown a worldwide psychological impact of COVID-19, it seems necessary to find factors that can predict symptoms such as anxiety. Therefore, this study aimed to fill the gap in knowledge about coronavirus-related existential themes and anxiety, especially in our country. This study's primary question was whether existential thinking and meaning in life can significantly predict corona disease anxiety.

## Methods

This study is applied research in terms of purpose and descriptive correlational in terms of data collection. The statistical population of the study includes all teachers

of public primary schools in Kermanshah, Iran, in 2022, among whom 269 persons were selected according to Morgan's table by multi-stage cluster sampling method. First, district three was selected from among the educational districts of Kermanshah city, then elementary schools were selected from among the schools of this district, and finally, several classes and teachers who were willing to participate in the research were selected from each school. Data were collected with the Google Form platform during the second peak of the outbreak of the COVID-19 pandemic. The following inclusion and exclusion criteria were employed in the present study: The inclusion criteria consisted of willingness to participate, being a primary school teacher in Kermanshah city, and being a cyberspace user. The criteria for exclusion of samples were the distortion of the questionnaires and suffering from physical or mental illness background (based on participants' self-report). The questionnaires that were distributed on the Google Form platform among the volunteer participants were:

**Existential thinking scale:** This 11-item scale designed by Brandon Scherer in 2006 is used to measure existential intelligence. Subjects rate their engagement with existential concepts on a 6-point Likert scale (always, almost always, often, sometimes, never, I do not know). This questionnaire has a general subscale. The total score of the subjects in range between 11 and 55 with higher scores indicating the greater the individual's preoccupation with existential concepts. The internal consistency of this questionnaire in the original version was calculated at 0.93, which indicates the high reliability of the tool. The one-factor structure of the questionnaire has been confirmed in many studies [8]. In Iran, the tool was validated by Fasnaghari et al. 2020. In their research, the findings showed that the internal consistency coefficient for the whole scale is 0.88 and the correlation coefficient of the test-retest is 0.75 [29]. In the current study, estimated internal consistencies were  $\alpha=0.78$

**Meaning in life questionnaire:** The meaning in life scale was developed in 2006 by Steger et al. [30]. This questionnaire consists of two subscales including a search for meaning in life and the presence of meaning in life. Example items for the two subscales are "I am always looking to find my life's purpose (search)" and "I have discovered a satisfying life purpose (presence)". Item responses ranged from 1=strongly disagree to 7=strongly agree. Each subscale comprises 5 items and item 9 is reverse scored. Steger et al. reported high internal validity for the subscales of  $\alpha=0.87$  (search) and  $\alpha=0.86$  (presence). In Iran, this questionnaire was validated by Mesrabadi et al. in 2013 reporting acceptable discrimi-

native and construct validity [31]. In the current study, estimated internal consistencies were  $\alpha=0.70$  (search) and  $\alpha=0.73$  (presence).

**Corona disease anxiety scale:** This tool was developed and validated for measuring anxiety caused by the outbreak of coronavirus in Iran by Alipour et al. [32]. The final version of this tool has eighteen items and two components. Items one to nine measure psychological symptoms and items ten to eighteen measure physical symptoms. This scale is scored on a 4-point Likert scale (never: 0, always: 3), and the highest and lowest scores are between 0 and 54. A high score indicates a higher level of anxiety in the individual. The Guttman's  $\lambda^2$  value for the whole questionnaire was obtained as ( $\lambda=0.922$ ), the Cronbach alpha coefficient for psychological symptoms was ( $\alpha=0.879$ ), physical symptoms ( $\alpha=0.861$ ), and the whole questionnaire was ( $\alpha=0.919$ ). Also, its validity has been confirmed using heuristic and confirmatory factor analysis [33] in the present study, the reliability of the questionnaire was estimated to be 0.81 by the Cronbach alpha method. Finally, using software IBM SPSS software, version 27, the data were analyzed using Pearson correlation coefficients and multiple regression analysis at a 95% confidence level. Participants were invited to the research via the online form. In relation to ethical considerations, we should note that the participants were elucidated about the nature and purpose of the study and the voluntary basis of their participation. They were aware that the investigation was anonymous and confidential, and if the subjects requested, they were benefited from the research results. This study was conducted according to the declaration of Helsinki.

## Results

Analysis of respondents' demographic characteristics showed that 141(52.5%) of respondents were male, and 125(47.5%) were females. Of the study sample ( $n=269$ ), the majority of 175(65.01%) respondents were married. In Table 1, the descriptive statistics and bivariate correlations of the dependent (corona disease anxiety) and

independent (existential thinking and meaning in life) variables are presented.

According to Table 1, the corona disease anxiety among participants was high and the meaning of life and existential thinking were below average. The findings revealed that the amount of skewness observed for the research variables is in the range of +2 to -2; That is, in terms of skewness, the research variables are normal and their distribution is symmetric. Also, the amount of Kurtosis is in the range of +2 to -2; this indicates that the distribution of the studied variables has a normal Kurtosis. In the correlation matrix, as shown in Table 1, there was a significant negative relationship between corona disease anxiety and existential thinking and meaning of life ( $P<0.01$ ).

Before performing regression analysis, the assumptions of regression analysis were tested. First, for linear regression, assuming a medium-sized effect, sample size ( $N=104+m$ ), where  $m$  is the number of independent variables [31], there were two independent variables and 269 cases in this study. Therefore, the sample size was appropriate to perform regression analysis. Second, the Kolmogorov-Smirnov test was used to evaluate the normal distribution of data. Since the values obtained from this test for any of the variables were not significant ( $P>0.05$ ), the data had a normal distribution. Third, there should not also be multicollinearity in the data to perform regression analysis. To test the multicollinearity condition index (CI), variance inflation factor (VIF), and tolerance values were used. Given that for all predictor variables, CI was lower than 30, VIF lower than 10, and tolerance was lower than 20, this assumption of regression analysis was also accepted. In addition, the Durbin-Watson statistic was used to examine the autocorrelation between the independent variables. The Durbin-Watson value was 1.15; therefore, there was no multicollinearity among the independent variables and the regression method for this study was suitable.

**Table 1.** Descriptive statistics and inter-correlations of all variables

Variables	Mean $\pm$ SD	Min	Max	Skewness (Kurtosis)	1	2	3
Corona disease anxiety	57.36 $\pm$ 9.93	21	72	-0.97(0.72)	1	-0.584**	-0.668**
Existential thinking	30.00 $\pm$ 7.51	12	53	0.28(0.19)	-0.584**	1	0.774**
Meaning in life	36.72 $\pm$ 7.26	20	60	0.56(0.59)	-0.668**	0.774**	1

\*\* $P=0.01$

**Table 2.** Regression analysis to predict corona disease anxiety based existential thinking and meaning in life

Variables	B	Not Standardized	Standardized	t	p	R	R <sup>2</sup>	F	P
		Coefficients	Coefficients						
		SE	Beta						
Constant	9.909	55.767		9.909	<0.01	0.556	0.415	11.225	0.01
Existential thinking	-0.640	-0.201	-0.152	-0.224	<0.05				
Meaning in life	-0.668	-0.464	-0.339	-5.167	<0.01				

As shown in Table 2, the analysis of variance ( $F=11.225$ ,  $P<0.01$ ) revealed that variables identified in the equation could be linearly examined. According to Table 2, the predictor variables (existential thinking and meaning in life) predict a total of 41% of the variance of corona disease anxiety (the value of the adjusted R-square was equal to 0.415). The  $\beta$  obtained also suggests that existential thinking ( $P<0.05$ ,  $\beta=-0.152$ ) and meaning in life ( $P<0.01$ ,  $\beta=-0.339$ ), predict corona disease anxiety negatively.

## Discussion

This study assessed the predictors of corona disease anxiety based on existential thinking and meaning in life in primary school teachers. As observed in Table 1, our findings are consistent with previous studies showing the negative and significant correlation between corona disease anxiety with existential thinking and meaning in life. In addition, as can be seen in Table 2, the results confirm that existential thinking and meaning in life are negative and significant predictors of corona disease anxiety. In line with our findings, Marco and Alonso (2018) showed that meaning in life buffered the association between anxiety and maladjustment [34]. Kelso et al. (2020) showed that a sense of meaning can augment a person's cognitions of control over their distress. Peoples high in anxiety and experiential avoidance (efforts to decrease contact with tense thoughts, feelings, and sensations frequently connected to anxiety are likely to interpret uncomfortable thoughts, feelings, and sensations as threatening to their meaning in life [35]. Another study from Germany showed that the current COVID-19 pandemic causes psychological distress and anxiety [36].

Arkhodi Ghalenoei et al. (2021) investigated the mediating role of hope in the relationship between religious beliefs and coronavirus disease anxiety. The findings of this study showed that the indirect effect of religious beliefs on coronavirus disease anxiety mediated by hope

was significant [37]. In another study, Rakhshandeh. Doroudian, Nemati Jahan and Rostamnezhad (2022) showed that there is a significant negative relationship between coronavirus anxiety and the meaning of life and family intimacy. The variable of meaning in life and family intimacy can significantly predict coronavirus anxiety among housewives [38]. All these findings highlight the significant role of existential themes in corona disease anxiety.

In justifying this relationship, it can be said that anxiety is one of the common reactions of the automatic system of the mind in response to external threats containing a kind of inability to respond appropriately to them. In the same way, existential anxiety means being aware of the frightening aspects of life. According to the existential view, therapeutic approaches based on existential thinking help people to face unpleasant events and problems of life such as loneliness, the meaning of life, fear, etc., even if it is difficult, instead of avoiding unpleasant events [39]. From the study by Van Tongeren and Van Tongeren et al. (2021), it can be seen that the universal COVID-19 pandemic has produced a crisis of suffering and it describes suffering as an existential matter. In addition, existential thinking includes padlocking with the ultimate concerns of the human status (e.g. mortality, isolation, freedom, and meaning), and this, in turn, evokes potential anxiety and challenges the meaning of life [40].

In line with the results obtained from the present study, it can be acknowledged that anxiety is the most fundamental feature of a critical situation that makes a person vulnerable to illness. The unpredictability of the future and the unknown have been anxious for humans. The coronavirus can be considered an existential or ontological crisis which is exacerbated by the lack of scientific information [41]. To understand the existential threats associated with the pandemic, we can refer to the perspective of terror management theory, which is based



on the work of Becker. This theory posits that when individuals are not viably overseeing their existential terror by building a meaningful and purposeful life, death anxiety and maladaptive ways of managing with anxiety are the common results. It has been argued that both death anxiety and incapable or disturbed anxiety-buffer functioning are transdiagnostic vulnerability factors for psychological disorders [42].

According to Viktor Frankl's logotherapy, meaning can rise from self-empowerment, proposing that the capacity to select our reaction to the foremost harmful circumstances permits us to discover meaning in the same circumstances. Perhaps, the choice of existential themes is the establishment for preserving agency and in this manner, making meaning of the coronavirus widespread [43]. Therefore, the loss of meaning can be related to several adverse consequences.

In another explanation for the research findings, Zhang et al. (2019) examined the association between meaning in life, self-esteem, and death anxiety in senior citizens in China. In this study, four important functions that are the result of meaning in life have been mentioned: (A) life objectives; (B) values and standards for the self-assessment of behavior; (C) a sense of control over life occasions; and (D) feelings of self-worth [44]. For this reason, it can be stated that having a direction in life, a sense of control over life events, having a sense of tangible values that are derived from the meaning in life, when faced with difficult conditions such as the coronavirus pandemic, act as a shield against anxiety. Lizana et al. [23] specifically have mentioned that work overload due to teleworking or feelings of uncertainty, loneliness, and fear that the pandemic and its associated confinements will worsen affects the quality of life of teachers. Therefore, this uncertainty, unpredictability, and feeling of loneliness in the time of epidemics will draw attention to existential issues, search for meaning in life and increase anxiety.

On the whole, it can be said that during the recent epidemic, a decrease in teachers' interactions with colleagues and students, an increased sense of existential loneliness during this period, observation of mortality due to coronavirus, and uncertainty in controlling the disease are among the factors that can increase anxiety about corona disease and provide the basis for re-examination and revision of the basic concepts related to existential thinking.

Our findings should be interpreted along with taking into account several study limitations. The results of this

study depend on respondents' self-reports. Self-reports may yield limitations owing to biases such as social desirability and short-term recall. For future studies, it is suggested to use other techniques such as clinical interviews to gather more accurate data to measure the relationships between variables. We should take into account that although the sample had an adequate size, the study was conducted only on primary school teachers, which reduced the generalization power of the research. Because of this, supplementary research needs to be conducted with various populations and contexts to probe the association between the variables. This research was conducted online. Therefore, those without Internet access could not be involved in the study. Finally, the current research was conducted based on the quantitative method; however, the use of qualitative and mixed design helps us to better understand the relationships between the variables in the research. The study's findings provide profitable data to mental health professionals managing the mental well-being issues caused by epidemics such as the COVID-19 outbreak. Considering the special importance of mental health and the role of meaning in life as well as the tendency to explore the fundamental question of existence (existential thinking) in times of crisis and the need to moderate the anxiety derived from these stressful conditions, it is suggested to hold educational workshops in the field of meaning-based interventions, which can provide appropriate and efficient strategies to a person to deal with and overcome such stressful situations.

## Conclusion

Despite its limitations, current research has enhanced our understanding of the association between concepts related to the existentialist perspective and anxiety of COVID-19. The study revealed that corona disease anxiety was strongly related to existential thinking and meaning in life in primary school teachers. Thus, for psychotherapists and clinicians who have been trained in existential approaches, the findings presented here may be useful in helping clients to relieve anxiety caused by COVID-19.

## Ethical Considerations

### Compliance with ethical guidelines

In relation to ethical considerations, we should note that the participants were made clear about the nature and purpose of the study and the voluntary basis of their participation. They were aware that the investigation was anonymous and confidential, and if the subjects requested, the participants benefited from the research results. This study was conducted according to the Declaration of Helsinki.

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## Authors' contributions

All authors equally contributed to preparing this article.

## Conflict of interest

The authors declare no conflict of interest

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