Original Article

Investigating the causal model of the meaning in life and sense of coherence with Covid-19 anxiety: the mediating role of hope

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Abstract

The coronavirus disease 2019 (COVID-19) crisis has greatly affected human lives across the world. This study aimed to the mediating role of hope in relationship between the meaning in life and the sense of coherence with Covid-19 anxiety. The research method was correlation of the type path analysis. The population of this study included all undergraduate students of Poldakhtar Higher Education Center in the academic year 2020-2021. 210 students participated in this study by available sampling method and online questionnaire and answered the Corona Disease Anxiety Scale (CDAS), Antonovsky's Sense of Coherence Questionnaire (ASCQ), Meaning in Life Questionnaire (MLQ), and Hope Scale (HS). Data analysis was performed by the statistical method of path analysis using SPSS-22 and AMOS-24 statistical software, then the Bootstrap test was used to investigate the mediating role of variables. The results showed that after removing two direct paths from the meaning in life (β= 0.41, P<0.01) and sense of coherence (β= 0.29, P<0.01) to Covid-19 anxiety, through hope (β= -0.32, P<0.01), the model of the meaning in life and sense of coherence to Covid-19 anxiety was confirmed. According to the results, students who have higher hopes experience less Covid-19 anxiety, and on the other hand, as the meaning in life and sense of coherence increases, so does hope, which results in a decrease in Covid-19 anxiety. Therefore, it is possible to increase hope and reduce the severity of Covid-19 anxiety in students by educating and promoting the meaning in life and a sense of coherence.

Introduction

The outbreak of coronavirus in December 2019 in Wuhan posed a new challenge to humanity. Covid-19 has affected every country in different dimensions (Simon, Ovais & Kadeer, 2021). The current epidemic posed not only the risk of death but also unbearable stress for people around the world (Xiao, 2020). Anxiety, recognized as one of the most common psychological disorders in a coronavirus crisis (Asmundson & Taylor, 2020), has been defined as a common response to distressing mental conditions, fear, or helplessness associated with threatening situations or anticipating unknown threats to oneself and others. (Davidhizar & Dowd, 1996). A study by Moghanibashi-Mansourieh (2020) on measuring anxiety in Iran at the same time as the Corona outbreak, showed that approximately one-fifth of people experience severe to very severe anxiety. This study also showed a higher rate of anxiety in people aged 21 to 40 who are in the active age of society.

Although significant steps have been taken to diagnose infection among individuals, mental health care, especially among students, has been relatively neglected (Xiang, Yang, Li, Zhang, Zhang, Cheung & Ng, 2020).

While mental health problems are high in students, the rate of treatment is very low (Blanco, Okuda, Wright, Hasin, Grant, Liu & Olfson, 2008).

Given the prevalence of Covid-19 disease, fear of disease, and fear of death along with the disturbance of daily activities, it is important to pay attention to positive psychological variables in dealing with Covid-19 anxiety. Among these variables can be mentioned the sense of coherence defined as the individual's ability to identify life stressors and then efficient use of coping resources and health maintenance (Ralph, Magyar-Russell, Dilella & Matter, 2014). This sense is a personal orientation toward life (Paika, Ntountoulaki, Papaioannou & Hyphantis, 2017). People with a strong sense of coherence can understand and control the environment to have a meaningful and appropriate behavior or action

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(Lindblad, Sandelin, Petersson, Rohani & Langius-EKlöf, 2016), which is possible through the three basic concepts of comprehensibility, manageability, and meaningfulness of events from a person's point of view. Finds (Chittem, Lindström, Byrapaneni & Espnes, 2015). Research has shown that a sense of coherence can be effective in reducing anxiety (Hutchinson, Stuart & Pretorius, 2011) and protecting a person's health from stressful living conditions (Grevenstein & Bluemke, 2015). According to Szcześniak & Strochalska (2020), a high sense of coherence is associated with low anxiety. According to research by Del-Pino-Casado, Espinosa-Medina, López-Martínez & Orgeta (2019), higher levels of coherence are associated with lower levels of mental health outcomes such as anxiety and depression. Uchida, Tsujino, Muguruma, Hino, Sasaki, Miyoshi, Koyama & Hirao (2018) in their study concluded that a low sense of coherence is associated with anxiety in adults. Eini, Ebadi &Torabi (2020) in a study aimed at investigating the mediating role of perceived social support in the relationship between coherence and resilience with Covid-19 anxiety in medical students concluded that coherence, resilience and perceived social support have a direct effect on students' Covid-19 anxiety; Also, a sense of coherence and resilience has an indirect effect on students' Covid-19 anxiety through perceived social support.

In recent years, much attention has been paid to the structure of meaning in life in psychological research. There are many different definitions of meaning in life, all of which refer to having a purpose. Meaning in life refers to a sense of existential integrity that seeks to respond to the philosophy of life, realize the purpose of life and achieve valuable goals, and thus achieve a sense of completeness and usefulness (Ho, Cheung & Cheung, 2010). Steger, Frazier, Oishi & Kaler (2006) consider the meaning in life to be effective in the sense of human constructiveness and even claim that human nature and existence depend on having such a concept. Findings show that meaning in life has a negative relationship with maladaptive behaviors and symptoms (Steger, Kashdan, Sullivan & Lorentz, 2008). People whose lives have more meaning are better able to cope with life's anxieties and challenges and have better information processing and a more positive outlook on the future. Thus, meaning in life is a useful coping skill that makes a person enjoy his time and endure bad situations (Garcini, Short & Norwood, 2013). Narimani & Eyni (2020) in a study showed that the meaning in life, self-compassion, and a high sense of coherence reduces the perceived stress of cancer patients. Zhong, Zhang, Bao & Xu, (2019) showed in a study that the meaning in life has a moderating role in the relationship between perceived stress, mindfulness, and psychological symptoms in patients with gastrointestinal cancer, and due to the effect of the meaning in life, psychological symptoms can be reduced in these patients.

The sense of coherence and meaning in life, in addition to the effects that can reduce people's anxiety in the face of threatening and critical situations, by affecting various variables such as hope can also be effective in reducing the level of anxiety in people. Hope is a term that is very close to optimism and refers to being purposeful in life. This trait develops in a person from childhood children who have typically followed the role models of hopeful parents and teachers are hopeful people. This feature helps people not to give up in the face of problems and choose the right solutions. In fact, hope is the perceived ability to walk the path to the desired goal and the individual's motivation to use the path to reach the goal (Metzler, Zhang, Saw, Leu, & Landers, 2022). Snyder, Harris, Anderson, Holleran, Irving, Sigmon & Harney, (1991) believe that hope is both the understanding of the goal and the understanding of the paths of the goal, that is, hopeful people feel that they can create these paths. Likewise, hopeful thinking consists of three components: goals, thinking about the path and thinking about action. According to the broad definition in the framework of the theory of hope, the goal is everything that one desires to achieve or do, or experience and create. In hope theory, goals are the target of functional flows and cause intentional behaviors (cited in Khumalo & Guse, 2022). In other words, when a person starts a chain of intentional behavior, he should be led to a specified result. Before beginning a behavioral chain, one must know two other things: directions and agent thinking. Agent thinking is a type of thinking that people have according to their ability when starting and continuing to move in selected paths toward goals (Khumalo & Guse, 2022). Agent thinking gives a person enough motivation to start and keep moving forward in the desired direction. Although directions and agent thinking are two separate components of the hope model, they are inherently inseparable. In fact, change in one causes a common change in the other, and they interact (Metzler et al., 2022). The level of hope creates a link between goal-related behaviors and individual beliefs to achieve these goals (Joybari, Mirzaeian & Hassanzadeh, 2012). In a study aimed at mediating the role of hope in religious beliefs and Corona-virus anxiety, Arkhodi Qala-e-Navi, Haghayeghi & Saeedi Rezvani (2021) concluded that the indirect effect of religious beliefs on Corona-virus anxiety was mediated by hope. Also, the direct and positive effect of religious beliefs on hope (with two components of strategic thinking and agent thinking) and also the direct and negative effect of hope (with two components of strategic thinking and agent thinking) with Corona-virus anxiety were significant. A study, the results of the Anjum study (2020) also indicate the high predictive role of secondary positive emotions such as hope, confidence, satisfaction, happiness, and desire in strengthening the mental immune system and reducing the negative consequences of the Corona-virus crisis such as panic and functional disorders. The results of other studies have also shown the role of hope in reducing anxiety and depression (Hoshyari & Alipour, 2020; DiPierro, Fite & Johnson-Motoyama, 2018; Germann, Leonard, Heath, Stewart & Leavey, 2018; Rajandram, Ho, Samman, Chan, McGrath & Zwahlen, 2011).

One of the factors related to hope in individuals is the acquisition of the concept and meaning in life (Miao,

Zheng & Gan, 2021; Jin, Zheng, Wen & Miao, 2021; Rahimi, Ebrahimi & Baseri, 2020; Abdullahi, Ahmadi & Arjomand, 2014; Hutz, Midgett, Pacico, Bastianello & Zanon, 2014; Hedayati & Khazaei, 2014). Rezapour and Nosohi (2018) in a study concluded that the combined intervention of hope therapy and treatment of Adler's lifestyle has a significant effect on increasing self-compassion, self-efficacy, and sense of coherence in people with physical disabilities.

Considering the emergence of Covid-19 disease, the importance of anxiety in the mental health of students, the limited number of studies that have been conducted in this field, and the persistent psychological reactions in all social, economic, and psychological areas due to the spread of Covid-19 disease in students, the need to pay attention to their psychological state becomes more and more necessary. Also, the existence of various challenges due to Covid-19, has caused new experiences in the form of stress (stress and anxiety) for students; to reduce the anxiety of Covid-19 disease, one must first identify the factors associated with it and the contribution of each and then benefited them. Accordingly, in this study, the causal model of the meaning in life, sense of coherence, hope, and Covid-19 anxiety has been investigated. In this study, based on the results of the mentioned research, Covid-19 anxiety is considered as an endogenous variable, meaning in life and sense of coherence are considered exogenous variables, and hope is considered a mediating variable (Figure 1). With reference to the fundamentals of coronavirus anxiety, the need to further examine the question of whether hope plays a mediating role between the meaning of life and a sense of coherence with corona anxiety?
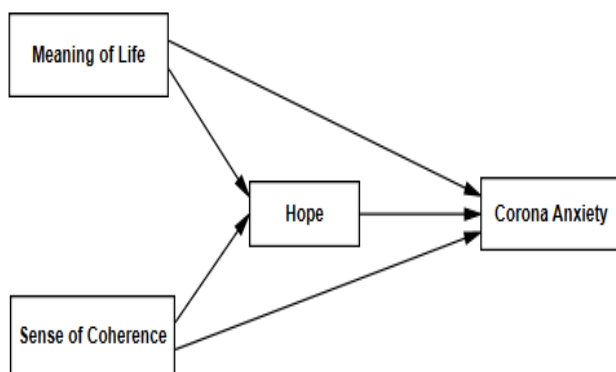

Figure 1. Proposed research model

Method

Participants

The present study is a descriptive-correlational study using causal relationship modeling methods. The population of this study included all undergraduate students single-gender Poldokhtar higher education center (450 student) who were studying in the academic year 2020-2021. Determining the minimum sample size required to collect data related to structural modeling is very important. Although there is no general agreement on the sample size required for factor analysis and structural models (Schreiber, Nora, Stage, Barlow & King, 2006), to determine the sample size, according to Kline (2015), the number of paths tested in the model, The criterion for determining the sample size was; That is, a minimum of 10 and a maximum of 20 people can be selected for each route. In this study, there are 7 routes (five direct routes and two indirect routes) based on the model design, the sample size of 210 people was determined (225 to prevent the sample volume from falling).

Procedure

Due to the need to reduce social contact in order to prevent the spread of Covid-19, the available sampling method and Internet implementation were used. The method is that the questionnaire link was made available to users online on WhatsApp and Telegram social networks. Participants in the study were instructed to refrain from writing their names on the questionnaires and were assured that all questionnaires would be collected for statistical analysis and their information would remain confidential. Whenever they did not want to continue, they could withdraw the research. The inclusion and selection criterion included being a student in Poldakhtar higher education center, being willing to participate in research and being a cyberspace user. The criteria for exclusion of samples were the distortion of the questionnaires. Data analysis was performed using path analysis statistical method and by the SPSS-22, and AMOS-24 software. Bootstrapping method was used to examine the mediating role of the variables in Amos software.

Instrument

Corona Disease Anxiety Scale:

This tool has been developed and validated by Alipour, Ghadami, Alipour & Abdollahzadeh (2020) to measure anxiety caused by the spread of the Coronavirus in Iran. The final version of this tool has 18 items and 2 components (agents). Items 1 to 9 measure mental symptoms and items 10 to 18 measure physical symptoms. The instrument is rated on a 4-point Likert scale (never = 0, sometimes = 1, most of the time = 2, and always = 3); Therefore, the highest and lowest scores that the respondents get in this questionnaire are between 0 and 54. High scores in this questionnaire indicate a higher level of anxiety in individuals. The reliability of this tool was obtained using Cronbach's alpha method for the first factor 0.879, the second factor 0.861 and for the whole questionnaire 0.919 (Alipour et al., 2020). In the present study, Cronbach's alpha coefficient for the whole scale was 0.75 and for the subcomponents of psychological and physical symptoms were 0.71 and 0.83, respectively, which the results indicate good reliability of the research tool.

The meaning in life questionnaire:

This scale has been proposed by Steger, Frazier, Oishi & Kaler (2006) to evaluate the existence of meaning and try to find it. This scale consists of 10 questions and two subscales that assess the existence of meaning in life including items (1, 4, 5, 6, 9) as well as the search for meaning including items (2, 3, 7, 8, 10). The scoring method is based on a five-point Likert scale with weights of 1 (completely incorrect) to 5 (completely correct) and a range of grades from 5 to 25. According to the report of Steger et al. (Steger et al., 2006), this scale has high reliability and validity. The two-factor structure of this tool has been confirmed in various studies and evidence suggests that this structure is similar in different cultures. In our country in the research of the Ehyakonandeh and Shaykholeslami (Ehyakonandeh & Shaikholeslami, 2014) and Ahmadi et al. (Ahmadi, Heidari, Bagherian & Kashfi, 2016), internal consistency (alpha coefficient between 0.82 to 0.87) has been confirmed. In the present study, Cronbach's alpha coefficient for the whole scale was 0.88 and for the subcomponents of meaning in life and search for meaning in life were 0.84 and 0.83, respectively, which the results indicate good reliability of the research tool.

Sense of Coherence Questionnaire:

The Antonovsky's Sense of Coherence Questionnaire (Antonovsky, 1987) contains 29 questions on a 5-point Likert scale, graded from 1 to 5. The participant determines the degree of agreement with each clause by confirming one of the 5 points. Also, each selected number is the score of the same question, with the difference that 13 questions from this questionnaire (1, 4, 5, 6, 7, 11, 13, 14, 16, 20, 23, 25, 27) are scored reversely and finally the sum of the selected numbers is considered as the individual score in the test. In this questionnaire, the minimum and maximum scores for the participant are between 29-and 230. The sense of coherence questionnaire includes three dimensions: comprehensibility, controllability, and meaningfulness. The validity of this questionnaire has been confirmed in the research of Agha Yousefi & Sharif (Agha Yousefi & Sharif, 2011). Regarding the reliability and validity of the 29-item Antonovsky's Sense of Coherence Questionnaire (Antonovsky, 1993), in a review of the validity and reliability of the 29-item questionnaire with data from a survey in 20 different countries, the following results were obtained. In 26 studies using a 29-item test, the Cronbach's alpha size for internal stability ranged from 0.82 to 0.95. The correlation obtained from the test-retest showed significant stability of 0.54 over 2 years. Eriksson & Lindström (2006) also conducted a systematic review of a collection of 458 scientific papers in 13 doctoral dissertations published between 1992 and 2003, concluding that the Sense of Coherence Questionnaire (29 questions and 13 questions) are reliable and valid and can be used interculturally. The alpha obtained for the 29-item questionnaire in 124 studies showed a range of 0.70 to 0.95. Test-retest showed the stability of the questionnaires and showed a correlation of 0.69 to 0.78 for one year, 0.64 for two years, 0.42 to 0.45 for 4 years, 0.59 to 0.67 for 5 years, and 0.54 for 10 years. In more recent studies, the alpha of the 29-item questionnaire has been estimated to be 0.84 and 0.86. Totally, the research evidence shows that the 29-item questionnaire of the sense of coherence has research validity in the field of psychological research and health sciences. In this study, the researcher has estimated the reliability of the questionnaire by 0.79 using Cronbach's alpha coefficient. In the present study, Cronbach's alpha coefficient for the whole scale was 0.85 and for the components of comprehensibility, controllability and meaningfulness were 0.85, 0.78, and 0.82, respectively, which the results indicate good reliability of the research tool.

Hope Scale:

This scale was designed by Snyder et al. (Snyder, Harris, Anderson, Holleran, Irving, Sigmon & Harney., 1991) which has 12 items and is performed as a self-assessment. Questions 3, 5, ,7 and 11 are not graded and are deviant. Questions 1, 4, 6, and 8 are related to the strategic thinking subscale, and questions 2, 9, 10, and 12 are related to the agent thinking subscale. The agent thinking component is the determinant of an individual's goal orientation, and the strategic thinking component includes the planned ways to achieve goals. Several scoring methods have been reported for this scale. In the version used in this study, each item is measured on an 8-point scale, which ranges from strongly disagree to strongly agree with a score of 1 to 8, and the total score of each subscale is between 4 and 32. The total hope score is the sum of these two subscales, which is from 8 to 64, and a higher score indicates more hope. The hope scale showed acceptable internal reliability from 0.74 to 0.78 (Snyder et al., 1991). Also, Snyder et al. Reported the reliability of the whole scale, subscales of agent thinking and subscales of strategic thinking by retest method of 0.85, 0.81 and 0.74, respectively (Snyder et al., 2002). In Iran, the validity coefficient of this scale was 0.86 using Cronbach's alpha formula and 0.81 by retesting. Examination of construct validity using confirmatory factor analysis also showed that the scale has a two-factor structure including agent and strategic thinking (Kermani, Khodapanahi & Heidari, 2011). In the present study, Cronbach's alpha coefficient for the whole scale was 0.88 and for the subscales of agent thinking and strategic thinking were 0.82 and 0.76, respectively, which the results indicate good reliability of the research tool.

Results

In the present study, all of the participants in were male. The results also showed that, the mean and standard deviation of age is 23.82 (2.58). In addition, 210 participants included 27.6% of psychology field, 18.1% of accounting, 18.6% of English language, 15.7% of Sports Science, 14.8% of computer, and 5.2% agricultural engineering students. Therefore, most of the students in the present study were psychology field. Table 1 presents descriptive indicators of research variables.

Table 1. Descriptive indicators of research variables

Variables	M	SD
1. meaning of life	5.10	1.15
2. sense of coherence	3.37	0.47
3. hope	3.63	0.65
4. corona anxiety	1.14	0.28

A Pearson correlation coefficient was used to investigate the relationship between of research variables. And the statistical assumption of data normality was confirmed by Kolmogorov-Smirnov test. The correlation coefficients between the research variables have been presented in Table 2

Table 2. The Correlation Matrix and Kolmogorov-Smirnov test of Research Variables

	K-S	Sig	1	2	3	4
1. meaning of life	1.06	0.208	1			
2. sense of coherence	1.02	0.252	0.60**	1		
3. hope	1.15	0.141	0.58**	0.53**	1	
4. corona anxiety	1.25	0.085	-0.18**	-0.10	-0.32**	1

P<0/01**

Table 1 shows that the mean and standard deviation of corona anxiety in the studied sample is 1.14 (0.28). Also, the mean and standard deviation of meaning of life is 5.10 (1.15). There is a negative and significant relationship between corona anxiety and meaning of life (R = -0.18). In the studied sample, the mean and standard deviation of sense of coherence is 3.37 (0.47). There was no significant relationship between corona anxiety and sense of coherence (R= -0.10). In the studied sample, the mean and standard deviation of hope was 3.63 (0.65). There are negative and significant relationships between corona anxiety and hope (R = -0.32). Also there is positive and significant relationship between meaning of life and hope (R = 0.58), and between sense of coherence and hope (R = 0.53).

The original proposed model was a saturated model. Note that if the model is saturated or just-identified, then most (but not all) fit indices cannot be computed, because the model is able to reproduce the data. Due to the zero degree of freedom, these models have a zero chi-square value and unrealistically fit the data perfectly. In order to achieve the fit indices, a highly modified modified model with a positive degree of freedom should be developed by eliminating non-significant coefficients.

Table 3. Comparison of Fitness Indicators of the Proposed and Modified Model

Goodness fit indexes	CMIN/DF	GFI	AGFI	IFI	TLI	CFI	NFI	RMSEA
Acceptable values	1-5	>0.90	>0.80	>0.90	>0.90	>0.90	>0.90	<0.08
Initial proposed mode	-	1.00	-	1.00	-	1.00	1.00	0.41
Fit status	Lack of fit	fit	Lack of fit	fit	Lack of fit	fit	fit	Lack of fit
Final modified mode	1.72	1	0.98	1	1	1	0.99	0.001
Fit status	fit	fit	fit	fit	fit	fit	fit	fit

According to Table 3, the model fit indices, ie x2/df= 1.72 less than 3, IFI= 1.00, TLI= 1.00, GFI= 1.00, AGFI= 0.98, CFI= 1.00, more than 0.9 indicate the appropriate fit of the model, as well as NFI= 0.99 more than 0. 8 and RMSEA= 0.001 less than 0.1.
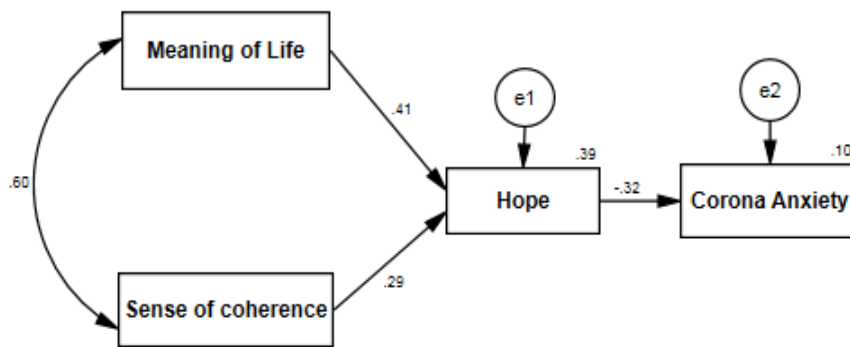
Figure 2. Final research model

Table 4. Coefficients of direct effects between research variables in the final standard model

Paths	B	β	C.R	Sig	R2
hope → corona anxiety	-0.129	-0.32	0.027	0.001	0.10
meaning of life → hope	0.241	0.41	0.04	0.001	0.39
sense of cohesion → hope	0.425	0.29	0.098	0.001	

Table 4 shows the direct and significance effect coefficients between the research variables.

As can be seen in Figure 2, after removing the two direct paths from the meaning of life and the sense of cohesion to corona anxiety, the path of hope (β = -0.32, P <0.01) to the corona anxiety and the paths of meaning of life (β = 0.41, P <0.01) and sense of cohesion (β = 0.29, P <0.01) with the hope were significant.

Table 5. Indirect Estimation of the Model Using the Bootstrap Method

Variables	β	Lower limit	Upper limit	p
meaning of life on corona anxiety mediated by the hope	-0.13	-0.21	-0.07	0.002
sense of coherence on corona anxiety mediated by the hope	-0.09	-0.15	-0.05	0.002

The results of Bootstrap test showed that hope plays a significant mediating role in the relationship between meaning of life and corona anxiety. Thus, the mediation share of this variable in relation between meaning of life and corona anxiety is -0.13 (p < 0.002). Also, the mediation share of this variable in relation between sense of coherence and corona anxiety is -0.09 (p < 0.002).

Discussion

Due to the need to investigate the factors affecting the reduction of Covid-19 disease anxiety during the epidemic of this disease, in the present study, the role of the meaning in life and sense of coherence in Covid-19 disease anxiety through the mediation role of hope was investigated. The study of the research model showed that the meaning in life indirectly and through the mediation role of hope, can predict Covid-19 anxiety. This finding is consistent with the results of Miao et al. (2021), Jin et al. (2021), Rahimi et al. (2020), Hoshyari and Alipour (2020), Anjum (2020), Germann et al. (2018), DiPierro et al. (2018), and Hutz et al. (2014). In explaining this result, it can be stated that people with high levels of meaningfulness and having goals and a fixed meaning of themselves and the future, when confronted with everyday problems, focus only on

certain aspects of the problem; People with low levels of meaning in life, on the other hand, see time constraints as a big problem and associate current problems with the likelihood of not achieving future goals. In this way, a person who experiences higher levels of meaning in life is easily able to cope with difficulties, as well as increase personal satisfaction and success. As a result, it can be said that certain aspects of meaningfulness, such as having the right view of one's position and the role and having specific goals, play a major role in increasing one's ability to deal with problems. Increasing the meaning in life not only helps a person to overcome incompatibilities but also leads to improved personal satisfaction with life. This feature of meaning seems to play an important role in helping people overcome uncomfortable and stressful situations. In other words, meaning in life is known as shaping positive human actions (Steger & Shin, 2010). People who choose meaningful goals in life experience more positive emotional states and are therefore prone to flourishing in various aspects of their lives throughout their lives (Ho et al., 2010). Meaning in life is negatively associated with negative psychological constructs such as lack of personal growth, lack of perceived control over environmental events, depressive symptoms (Steger et al., 2006), and rumination (Steger et al., 2008), and can lead to psychological happiness and well-being. (Steger et al., 2008). In the student

population, there is a high probability that meaning in life revolves around academic and academic success and achievement; therefore, pursuing these goals can increase students' satisfaction with academic life and provide an opportunity for them to grow psychologically. On the other hand, life expectancy causes a person to consider life meaningful in difficult situations, and by benefiting from the support of society and a sense of belonging to a high source, in the face of illness, he suffers less stress and less anxiety; Therefore, according to what has been mentioned, Covid-19 anxiety can be predicted indirectly by using the mediating role of hope in individuals.

A sense of coherence can indirectly predict Covid-19 anxiety through the mediation of hope. In other words, with the emergence of hope, the relationship between a sense of coherence and Covid-19 anxiety increases in a negative direction. Hence, hope seems to increase the positive effects of a sense of coherence in reducing Covid-19 anxiety. No research has been found that is directly consistent with this result, but there are studies from which such results can be inferred (Hoshyari and Alipour, 2020; Germann et al., 2018). A sense of coherence has three characteristics, including perceptibility, controllability, and meaningfulness, meaning that people with a sense of cohesion have a sense of trust that life experiences are understandable, manageable, and meaningful (Bayne, 2011), a high level of these components in the sense of coherence, causes people to perform their duties in relationships properly. In other words, these people have a higher ability to mobilize resources and facilities in critical situations, which leads to hope, optimism, and adaptation in behavioral areas; On the other hand, hope prevents traumatic perceptions and anxiety disorders and is one of the effective factors in reducing anxiety. Those who have high hopes have more ability and motivation to face stressful events and solve social problems and pandemics and have more capabilities in adapting to stressful situations; Because hope is a structure that strengthens man in the face of adversity and problems of the world and is a driving force to deal with hardships and conditions and prevents the perception of vulnerability and anxiety disorders (Snyder, 1996); In addition, those with high hopes have a greater ability to solve social problems, but on the other hand, those with lower hopes are more likely to use discrete coping strategies, such as shunning and avoiding problems (Ebrahimi & Navabi Nejad, 2014); Thus, feeling cohesive by creating hope can reduce anxiety caused by disturbing phenomena such as Covid-19.

Also, another result of the study was the significant direct and negative effect of hope on Covid-19 anxiety. Some results consistent with this finding include the findings of Hoshyari and Alipour (2020), Germann et al. (2018), DiPierro et al. (2018), Berendes et al. (2010), and Anjum (2020). Snyder et al. (2006) believes that hope has an effective role in increasing a person's self-care activities that can contribute to his physical and mental health. Therefore, hope causes a person to look

for more effective and better strategies to be more adaptable and deal with problems (strategic thinking) and by using these coping strategies (agent thinking), experience less anxiety in the face of problems and diseases.

Another result of the study was that the meaning in life can not directly reduce the anxiety of Covid-19, which is inconsistent with what was found in the research of Zhong et al. (2019), Garcini et al. (2013), and Narimani and Eyni (2020). This discrepancy can be explained in two ways. First, in terms of the type of disease and the nature of the anxiety caused by it, in the mentioned studies, the anxiety of people with the disease has been studied, but in the present study, the anxiety of possible illness in the future has been considered. Also, cultural and religious differences and the type of rituals and customs and special religions appropriate in the Islamic system can cause different and various levels of meaning in life in individuals, so this discrepancy is possible despite the different spectrum of people at different levels of meaning in life.

The results also showed that the sense of coherence has no direct and causal effect on Covid-19 anxiety. This finding is inconsistent with the results of research by Szcześniak & Strochalska (2020), Del-Pino-Casado et al. (2019), Uchida et al. (2018) and Eini et al. (2020); The reason for this discrepancy can be the use of different measuring instruments in the field of anxiety. Also, in explaining this finding, it can be said that the complex nature of humanities variables and the existence of other mediating variables that have not been studied in this study can be a reason that we cannot identify the real relationship between cohesiveness and Covid-19 anxiety as it is. Therefore, it is recommended to study the relationship between these two variables in other studies to clarify the nature of the relationship between these two variables.

Among the limitations of the present study, due to traffic restrictions, maintaining social distance, and closing universities, we can mention the limitation of sampling. To accurately generalize the findings more sampling studies are needed since the sample of the present study is only students. It seems that in generalizing the research findings to other people in the community and age groups, care should be taken because, in the present study, it was not possible to access samples from different age groups and genders. And because the meaning in life and sense of coherence and also the issue of anxiety are different in age groups and gender, it is suggested that the findings of the present study be examined in other samples and in greater numbers to have a more generalized and more accurate studies.

Conclusion

The findings of this study contain important information for higher education officials. According to the findings of the present study and confirmation of the indirect relationship between coherence and Covid-19 anxiety

through hope mediation, strengthening students' sense of coherence through group workshops can provide opportunities to increase hope, which can reduce Covid-19 anxiety. Also, considering the confirmation of the indirect relationship between the meaning in life and Covid-19 anxiety through the mediation of hope, it can be said that strengthening the meaning in life improves hope, and promoting hope reduces the level of Covid-19 anxiety. Therefore, to reduce the level of Covid-19 anxiety in society, it is necessary to teach the quality of application and operationalization of the meaning of life, in other words, to strengthen the meaning of life among students. On the other hand, because controlling Covid-19 anxiety in an epidemic around the world reduces the body's level of immunity and reduces the psychological and physiological resistance of people to the Coronavirus, it is necessary to deal with this anxiety through the meaning in life and hope.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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