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Predicting Students' Coronavirus Anxiety and Health-Oriented Behaviors (Observance of Health Protocols) Based on the Components of Psychological Capital

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ABSTRACT

Objective: This descriptive-correlational study aimed to predict students' coronavirus anxiety and health-oriented behaviors (observance of health protocols) based on the components of psychological capital.

Methods: The statistical population included university students coming from two public universities in south of Iran, 154 of whom were recruited as the sample of the study. The data gathering procedure was done through Google forms, the links of which were shared with the participants through WhatsApp. Corona Disease Anxiety Scale (CDAS) and Luthans's (2017) Psychological Capital Questionnaire were used as the main instruments and the collected data were analyzed by Pearson Correlation, simple, and multiple regression analysis.

Results: It was found that the higher the amount of psychological capital and its components in individuals, the more health-oriented behaviors (adherence to health protocols) and the less coronavirus anxiety in students. The obtained results also showed that students' health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices) were strongly correlated with psychological capital and its components as well as their perceived coronavirus anxiety.

Conclusions: According to the results of this study, it is recommended to hold training courses to promote psychological capital to increase health-oriented behaviors and reduce anxiety induced by such pandemics.

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Introduction

Coronavirus (Covid-19), caused by a virus called SARS-COV-2, started in late 2019 and its global spread as a pandemic has caused panic among the general public (Zhou, et al., 2020). As had been seen in pandemics such as the plague in the past, fear and anxiety among individuals increased sharply and people were more likely to fear death (Xiang, et al., 2020). In such pandemics, many families lose their loved ones, which also increases their psychological threats. In addition, people with the disease may feel ashamed and guilty (Van Bortel et al., 2016). As the prevalence of such diseases has consequences that affect all aspects of people's lives (Makamure, et al., 2013), the fear of pandemics such as coronavirus would have a major impact on general mental health (Torales, et al., 2020; Qiu, et al., 2020) and can lead to psychological disturbances such as panic, anxiety, depression, fear, and despair in individuals (Roy, et al., 2020), in addition to the threat it has for their physical health. Accordingly, since the outbreak of coronavirus, one of the most important consequences is anxiety due to this disease, which is addressed in the present study.

In recent decades, infectious diseases have caused some behavioral and cultural changes (Neuberg, Kenrick, & Schaller, 2011) to the extent that human beings have to make adaptations to reduce the prevalence of these diseases. Some behaviors can reduce a person's vulnerability to disease. For example, health-oriented behaviors, including exercise, proper nutrition, adequate sleep, resistance to smoking, and using drugs and alcohol (Atkinson, et al., 2000) affect the body's ability to cope with disease and the general functioning of the body. In the current context of the corona pandemic, one of the most important health-oriented behaviors that reduces the probability of infection, and is emphasized by the World Health Organization (WHO), is to follow health protocols as wearing medical masks combined with other measures including frequent hygienic hand disinfection and physical distancing of at least one meter while communicating with others.

Although many behavioral changes, such as information transfer, home quarantine, and avoidance of gatherings have had positive effects on enhancing individuals' physical wellbeing (Poletti, Poletti, & Ajelli, 2000; Raude, et al., 2019), these changes do not generally eliminate the psychological consequences of disease (Brooks et al., 2020). Citizens in any country are still at high risk for coronavirus. Individuals' exposure to ambiguous situations, especially when there is a potential risk of death, can increase their anxiety levels and this can make people vulnerable (Shigemura, et al., 2020). People often do not take enough care when they feel very stressed and

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anxious. Thus, high stress and anxiety affect human health by reducing health-oriented behaviors and increasing harmful behaviors (Atkinson, et al., 2000). Consequently, the development of strategies to prevent the spread of the virus is still necessary (Shiina, et al., 2020).

In addition, isolation and quarantine anxiety can also weaken the immune system and make people vulnerable to coronavirus (Fardin, 2020). Cao et al. (2020) reported that first- to fourth-year college students experience almost moderate levels of anxiety due to the prevalence of Covid-19. Also, previous studies (Shiina, et al., 2020) showed that people who had very little knowledge about Covid-19 not only had access to very little information resources but they also did not trust such limited sources. These people had very little anxiety about their health status and had little interest in taking preventative behaviors such as washing their hands frequently and avoiding crowded environments. Thus, with the vaccination of individuals in many countries, self-care, personal hygiene, and the change of some social behaviors are still considered as effective approaches (Buruk & Ozlu, 2020). Jones and Salathé (2009) reported that engaging in protective behaviors varies from person to person and may be influenced by several factors; the most important of which are variables related to positive psychology that have not received much attention, including psychological capital that can play a role in performing health-oriented behaviors such as observance of health protocols.

Psychological capital is one of the indicators of positive psychology, which is defined by characteristics such as belief in one's ability to achieve success, perseverance in pursuing goals, creating positive self-image, and enduring problems (Mathe et al., 2017). Scholars (Seligman & Csikszentmihalyi, 2020) believe that psychological capital includes positive aspects of human life. They maintain that social capital is obvious, easily visible, and can be easily measured and controlled, while psychological capital is more potential and difficult to measure and develop. Thus, psychological capital is defined as a person's self-perception, having a goal to achieve success, and enduring adversity (Luthans & Youssef, 2017). In sum, psychological capital is a hybrid and interconnected structure that includes four perceptual-cognitive components, namely self-efficacy, hope, optimism, and resilience. These components, in an interactive and evaluative process, give meaning to life, perpetuate individuals' efforts to change stressful situations (Erez &

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Judge, 2011) and prepare them to enter the action scene (Judge & Bono, 2012); and ensures their resilience in achieving goals (Parker, et al., 2013; Dello Russo & Stoykova, 2015).

The hope component of psychological capital is a positive motivational state with clear goals for life. In hope lies, on the one hand, the desire to be motivated, the will to move towards goals, and, on the other hand, the search for appropriate ways to achieve goals (Baily & Snyder, 2007). The results of research have shown that hope is associated with reduced anxiety and depression (Afrooz Dalir & Sadeghi, 2017; Ebright & Lyon, 2002; Ghorbani et al., 2013) as more hope indicates a positive attitude towards achieving a desired result (Rand, 2009).

Self-efficacy is also defined as an individual's judgment of his or her ability to perform an action (Bandura, 2008). This component has been the focus of several researchers (Thompson, et al., 2022; Wang, Shen, & Yu, 2021; Wyatt, 2021), all confirming its positive correlation with academic success. One study (Meyer et al., 2022) found that stress perception is most strongly affected by individuals' self-efficacy and they referred to this construct as the most important resilience factor decreasing the perceived stress by individuals.

The optimism component means having positive expectations for results and outcomes (Luthans & Youssef, 2017). Optimists are able to solve problems faster (Chang & D'Zurilla, 1996). Also, as they have more positive expectations for the future, they experience less daily anxiety and problems (LaMontagne, 2003), more positive emotions (Lai, et al., 2005) and higher life satisfaction (Bailey et al., 2007). According to (Brissette, Scheier, & Carver, 2002) high optimism predicts less confusion and anxiety in students.

The last, but not the least, component of psychological capital is resilience, which is a positive adaptation in response to adverse conditions. In fact, resilience is not just passive resistance to injury or threatening conditions. Rather, the resilient person is an active participant and builder of his or her environment (Waller, 2014). Resilience can protect a person against physical and psychological distress (Hjemdal, et al., 2007) This component was found to have a key role in the university or educational community (Cleland, et al., 2020) in people's psychological and social state (Killgore et al., 2020) and it correlated with the ability to cope with the stress generated during the COVID-19 pandemic (Giovannini et al., 2020).

Previous research on psychological capital has examined the components of this variable (self-efficacy, hope, optimism, and resilience) separately, but new studies on psychological capital have

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examined these components in relation to each other and considering the commonalities of these variables (Luthans & Youssef, 2017). In other words, psychological capital is considered a higher-order structure, meaning that the four components combine to form a synergistic whole, and the whole structure is expected to have a greater impact on performance relative to the effects of its component (Luthans, 2017).

To the best of our knowledge, current literature on COVID-19 pandemic has not addressed the role of psychological capital and the health-oriented behaviors. In this study, the correlation of health-oriented behaviors (including wearing masks, hygienic hand disinfection, and social distancing practices) with psychological capital and coronavirus anxiety is investigated and the following research questions and the corresponding hypotheses were formulated.

Research Questions:

1. Is there any relationship between psychological capital and its components and students' coronavirus anxiety and their health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices)?

2. Is it possible to predict students' coronavirus anxiety based on the level of their psychological capital?

3. Is it possible to predict students' health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices) based on the level of their psychological capital?

4. Is it possible to predict students' coronavirus anxiety based on their health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices)?

Research Hypotheses:

Hypothesis 1: Psychological capital and its components are correlated with students' coronavirus anxiety and their health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices).

Hypothesis 2: Students' coronavirus anxiety can be predicted based on the level of their psychological capital.

Hypothesis 3: Students' health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices) can be predicted based on the level of their psychological capital.

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Hypothesis 4: Students' coronavirus anxiety can be predicted based on their health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices)?

Materials and Methods

a. Participants

The statistical population includes university students coming from two public universities in south of Iran (Yasuj University and Salman Farsi University of Kazerun), from which, 162 agreed to participate in this study. Participants varied in age from 18 to 45 (M= 20 years old, SD = 2.89) and were both male and female students (67 males and 95 females). Participants were recruited via social media platforms (e.g., WhatsApp) applying convenience sampling method. They were all native speakers of Farsi and had a similar language learning history but they differed in terms of the period of time they had been studying English in the past. All ethical protocols were followed in conducting the research. Participants were informed that participation was entirely voluntary, and were assured of the confidentiality of their responses. After their consent to participate in the study, they were asked to complete the online survey. Later, checking the obtained results, eight participants with outlier data were excluded and consequently, the data obtained from the remaining 154 student participants were used in the data analysis stage.

b. Instruments

Corona Anxiety Questionnaire: The Corona Anxiety questionnaire (Alipour et al., 2020) consists of 18 items and evaluates 2 components of psychological and physical symptoms in a four-point Likert scale ranging from never (0) to always (3). Items 1 to 9 measure psychological symptoms and items 10 to 18 measure physical symptoms. Therefore, in this questionnaire, the minimum score is 0 and the maximum score is 54, and higher scores indicate more anxiety in individuals. The reliability calculated by Alipour et al. (2020) for the component of psychological symptoms is 0.879, for the component of physical symptoms, it is 0.861 and for the whole scale, it is 0.919. Also, the correlation of this tool with Goldenberg General Health Questionnaire as an indicator of tool validity was reported by Alipour et al. (2020). In the present study, Cronbach's alpha coefficient was 0.936 and its validity for the current purpose was approved by five experts working in the field.

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Psychological Capital Questionnaire: Luthans, Youssef and Avolio's (2007) questionnaire was used to measure psychological capital. This questionnaire consists of 13 questions answered in a 6-point Likert scale (6 = strongly agree to 1= strongly disagree score). The self-efficacy subscale is measured through questions 1 to 4, hope through questions 5 to 7, optimism would be checked in questions 8 to 10, and resilience is included in questions 11 to 13. To calculate the psychological capital score, first the score of each subscale is obtained separately and then their sum is considered as the total psychological capital score. In Bahadori Khosroshahi, Hashemi Nosratabadi and Bayrami (2013), the validity of this questionnaire was confirmed and its reliability was determined based on Cronbach's alpha, which was 0.85. In the present study, the reliability of this tool was 0.90 and five experts working in the field approved its validity for the current purpose.

Observance of health protocols: To assess health-related behaviors concerning Covid-19, questions related to three items (use of mask, hygienic hand disinfection and the amount of face-to-face communication) were asked in the demographic variables section of the questionnaire. The questions were answered on a 3-point Likert-scale in three degrees including low, medium and high. Again, for this part of the study, we consulted five experts in the field to check the appropriateness of the questions.

c. Data collection procedure

Early in the study, the instructors of the two universities were contacted to invite them participate in the study. Upon their agreement, the researchers provided the consent letters forms along with an online survey for the students. The students were assured of the confidentiality of their responses. Then, they completed the questionnaire through the well-known WhatsApp application. The collection of data lasted for two months. At the end of this phase, a body of 162 questionnaires were collected.

d. Data analysis

Using SPSS software (version 23), both descriptive and inferential statistics were used in this study. First descriptive statistics were used to check the normality of the obtained data was checked via such indices as Kurtosis and Skewness. After omitting the eight outliers, the data were found to be normal. Then, Pearson Correlation, simple, and multiple regression analysis were used to investigate the research hypotheses posed earlier in the study.

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Results

Based on the results of demographic variables, the number of female students participating in the present study is 89 (57.8%) and the number of male students is 65 (42.2%). Also, the age range of the participants in the study is 18 to 45 years. Descriptive statistics (mean, standard deviation, minimum and maximum) of research variables are reported in Table 1.

Table 1. Descriptive statistics of research variables

Variables	Mean	SD	Min	Max	N
Age	20.80	2.96	18	45	154
Self-efficacy	17.48	3.89	5	24	154
Hope	13.11	3.54	3	18	154
Optimism	11.35	3.06	5	18	154
Resilience	12.48	2.95	6	18	154
Psychological capital	54.43	11.33	25	72	154
Psychological symptoms of corona anxiety	10.38	6.23	0	27	154
Physical symptoms of corona anxiety	5.83	6.22	1	21	154
Corona anxiety	16.24	11.35	1	47	154

As mentioned in the introduction, this study aims to find the possibility of predicting students' coronavirus anxiety and health-oriented behaviors (observance of health protocols) based on the components of psychological capital. Accordingly, four research questions and the corresponding hypotheses were formulated. In this part of the study, the results pertaining to each research question are presented.

The relationship between psychological capital and students' health-oriented behaviors and coronavirus anxiety

The first research question posed in this study aimed to investigate the possible relationship between psychological capital and its components and students' health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices) and their coronavirus anxiety. To find the answer of this research question, Pearson Correlations were run (Table 2).

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Table 2. Results of Pearson Correlation between components of psychological capital and students' health-oriented behaviors and coronavirus anxiety

Variable		Mask Use	Hygienic hand disinfection	Social distancing practices	Corona Anxiety
Self-efficacy	Correlation	.497**	.250**	-.383**	-.611**
	p	.000	.001	.001	.001
Hope	Correlation	.487**	.305**	-.408**	-.595**
	p	.001	.001	.001	.001
Optimism	Correlation	.366**	.003	-.311**	-.436**
	p	.001	.967	.001	.001
Resilience	Correlation	.454**	.269**	-.451**	-.554**
	p	.001	.001	.001	.001
Psychological Capital	Correlation	.535**	.250**	-.456**	-.651**
	p	.001	.001	.001	.001
Corona Anxiety	Correlation	-.579**	-.301**	.409**	1
	p	.001	.001	.001	

**. Correlation is significant at the 0.01 level (2-tailed).

The results of the Pearson correlation (Table 2) show that there is a positive and significant relationship between Mask use and the components of psychological capital including self-efficacy (r=0.50), hope (r=0.49), optimism (r=0.37), and resilience (r=0.45), as well as the total psychological capital (r=0.53). As for hygienic hand disinfection variable, a positive and significant relationship was found between this variable and self-efficacy (r=0.25), hope (r=0.30), resilience (r=0.27) and the variable of psychological capital (r=0.25). However, the relationship between optimism and hygienic hand disinfection was found to be low and insignificant. Finally, with regard to the variable of social distancing practices, a significant relationship was found with the components of self-efficacy (r=-0.38), hope (r=-0.41), optimism (r=-0.31), resilience (r=-0.45) and psychological capital variable (r=-0.46).

As for the next variable of the study, i.e., coronavirus anxiety, a negative and significant relationship was found with mask use (r=-0.58), hygienic hand disinfection (r=-0.30) and social distancing practices (r= 0.41). As for the relationship between this variable and the components of psychological capital, it was found that the variable is negatively correlated with self-efficacy (r=-0.61), hope (r=-0.60), optimism (r=-0.44), resilience (r=-0.55) and psychological capital variable (r=-0.65).

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Predicting coronavirus anxiety based on psychological capital

The second research question aimed to find the possibility of predicting students' coronavirus anxiety based on the level of their psychological capital. Therefore, regression analysis was carried out to investigate whether psychological capital could significantly predict students' coronavirus anxiety level.

Table 3. Result of Simple Regression analysis to predict students' Corona Virus Anxiety based on Psychological Capital

Predictive variable	Regression coefficients					Summary Regression Model Result				
	Criterion variable	B	β	t	p	R	R^2	Adjusted R^2	F	P
Psychological Capital	Corona Virus Anxiety	-0.66	-0.65	-10.83	0.00	0.65	0.42	0.42	117.24	0.000

The results of the above table show that the correlation between the variables of psychological capital and the anxiety of coronavirus is R=0.65. The R^2= 0.42, which shows that 42% of the variance or individual differences in the psychological capital variable is related to the variance or individual differences in the coronavirus anxiety. This correlation is 100% significant as shown in the table (p=0).

Predicting health-oriented behaviors based on psychological capital

As stated in the Introduction, the third research question aimed to find the possibility of predicting students' health-oriented behaviors based on the level of their psychological capital. Accordingly, regression analysis was carried out to investigate whether students' psychological capital states could significantly predict their health-oriented behaviors. The results are brought in Tables 4.

Table 4. Result of Simple Regression analysis to predict students' Health Oriented Behaviors based on Psychological Capital

Predictive variable	Regression coefficients					Summary Regression Model Result				
	Criterion variable	B	β	T	p	R	R^2	Adjusted R^2	F	p
Psychological Capital	Mask	0.03	0.53	8.00	0.000	0.53	0.29	0.28	64.02	0.000
	Hand	0.02	0.25	3.27	0.001	0.25	0.06	0.06	10.71	0.001
	Communication	-0.02	-0.46	-6.48	0.000	0.46	0.21	0.20	42.01	0.000

Mask= wearing masks, Hand= hygienic hand disinfection, and Communication= social distancing practices

The results provided in Table 4 show that the correlations between the variables of psychological capital and the components of health-oriented behavior are significant at the significance level of 0.05. As for Mask use, R= 0.53 and R^2= 0.29 which shows that 29% of the variance or individual differences in the psychological capital variable is related to the variance in students' use of mask.

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With regard to hygienic hand disinfection, R= 0.25 and R^2=0.06 which revealed that only 6% of the variance or individual differences in the psychological capital variable is related to the variance in students' level of hygienic hand disinfection. Finally, it was found that psychological capital is a good predictor of students' social distancing practices **(**R= 0.46 and R^2= 0.21), which showed that 21% of variance or individual differences in the psychological capital variable is related to the variance in students' social distancing practices.

Predicting coronavirus anxiety based on health-oriented behaviors

The fourth research question aimed to investigate the possibility of predicting students' coronavirus anxiety based on the level of their health-oriented behaviors. In this part of the study, multiple regression analysis was used, the results of which are provided in Table 5.

Table 5. Result of Multiple Regression analysis to predict Corona Virus Anxiety based on Health Oriented Behaviors

Criterion variable	Regression coefficients					Summary Regression Model Result				
	Predictive variable	B	β	t	p	R	R^2	Adjusted R^2	F	P
Corona Virus Anxiety	Mask	-10.20	-0.60	-6.37	0.00	0.60	0.36	0.35	29.82	0.00
	Hand	2.38	0.14	1.62	0.01					
	Communication	3.26	0.15	2.03	0.04					

Mask= wearing masks, Hand= hygienic hand disinfection, and Communication= social distancing practices

As can be seen in Table 5, a multiple regression was run to predict students' coronavirus from their health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices) and it was found that these variables significantly predicted the coronavirus anxiety F = 29.82, p <0.05, R^2= 0.36). Therefore, the fourth research hypothesis was confirmed. These results would be discussed in the following section of the study.

Discussion

The aim of this study was to investigate the correlation between health-oriented behaviors (observance of health protocols) with components of psychological capital and Covid-19 anxiety in students. The results of the present study showed that the higher the level of psychological capital and its components, the more health-oriented behaviors, including the use of masks, hygienic hand disinfection, and social distancing practices (Health protocols recommended by WHO) and the less coronavirus anxiety experienced. In addition, the results showed that people who performed more health-oriented behaviors experienced less COVID-19 anxiety.

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According to the results, the higher the level of self-efficacy component of psychological capital, the more health-oriented behaviors the individual performs. In other words, people with higher self-efficacy believe that they can overcome the situation and get positive results. Self-efficacy affects individuals' healthy habits, the effort they put in to cope with stress, and the degree they resist obstacles (Clark & Dodge, 1999). Self-efficacy helps people feel that they can overcome their problems in unfavorable situations and succeed; so high self-efficacy helps people feel that by taking preventive measures (adherence to health protocols) in the Covid-19 pandemic, they can reduce the risk of being infected by the disease and therefore experience less anxiety. This part of the study was in line with the findings obtained by Meyer et al. (2022) who pointed that stress perception is most strongly affected by individuals' self-efficacy.

Also, the results of the present study showed that people who are at a higher level in terms of hope component follow more health-related protocols, including the use of masks, hygienic hand disinfection, and social distancing practices. This part of the study is in accordance with the literature showing the link between hope and reduced anxiety (Afrooz et al., 2018; Ebright & Lyon, 2002; Ghorbani, et al., 2013). In general, in anxiety invoking situations, people have a worrying view of the future, and similarly, in Covid-19, people are worried about the disease, but the component of hope causes a positive attitude to achieve a desired result, higher level of motivation, and persistence in following goals. Therefore, hope can reduce Covid-19 anxiety by changing worrying attitudes to positive ones. In fact, people experience less anxiety when they hope that they can prevent the disease infection by using a series of measures, including adhering to health protocols and not attending gatherings and meetings, and as a result, they experience less anxiety about being infected. We may also claim that people with higher hope levels have a positive attitude towards the effects of following health protocols in preventing covid-19 infection, and this will help reduce their Covid-19 anxiety. Also, hopeful people always pay attention to the positive aspects of the virus, and this again reduces anxiety because this disease, despite causing many physical and mental problems for people, also has positive aspects and attracts human attention to various aspects of life.

Another component of psychological capital is resilience, and in the present study, the results showed that the higher the individuals' resilience, the more health-oriented behaviors they show. This finding corroborate with the literature (Hjemdal et al., 2007) noting the protective role of

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resilience against physical and psychological distress. In explaining these findings, we can point to one of the important characteristics of resilient people, namely resistance. Resilient people are stubbornly resistant to problems and diseases and do not give up. This resilience also plays a protective role in relation to Covid-19 as it increases one's ability to cope with the stress generated during the COVID-19 pandemic (Giovannini, et al., 2020).

As the body and mind interact, if the person is mentally resilient, the immune system will be more efficient against physical illness. In addition, resilient individuals have the ability to absorb and use social support, and in situations such as Covid-19 pandemic that require more limited interactions and face-to-face communication, they can receive social support in other ways, including virtual or telephone communication. Socialization, in turn, can reduce coronavirus anxiety. Resilient people are also goal-oriented. Being purposeful gives people energy and motivation and focused attention on ways to achieve goals. These people can experience less anxiety about coronavirus by focusing on multiple goals and ways to achieve them and taking steps to achieve them. Because health can also be a goal for these people, and taking measures such as adhering to health protocols as an important preventive advice in achieving this goal, reduces anxiety.

In relation to the component of optimism and performing health-oriented behaviors (observance of health protocols), we can also refer to the definition of optimism as the expectation of good things happening in the future (Carver & Scheier, 2001). Optimists find their goals and values achievable when they are preoccupied, and their optimism keeps them pursuing their goals. In the context of covid-19, an optimistic view of health-oriented behaviors makes people more inclined to perform these behaviors. Individuals of higher levels of optimism experienced less stress in the current attempt which confirmed the literature (Lai et al., 2005; LaMontagne, et al., 2003).

Conclusion

The findings of this study on the correlation between students' health-oriented behaviors (wearing masks, hygienic hand disinfection, and social distancing practices) and psychological capital and its components as well as their perceived coronavirus anxiety provide both interesting information and suggestions for further work. The outbreak of covid-19, various mutations of the virus and the prolongation of the disease process during the last two years, was one of the unpredictable cases

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that in addition to high mortality rates, physical injuries, and high economic costs, psychologically caused many problems for people in different communities. Although the vaccine for this disease was made in different countries, including Iran, and the vaccination process has started and continues, the consequences of this disease are not hidden from anyone, and it can be said that it is not the last pandemic, as in several years ago, we had the same condition in different communities.

Therefore, it is necessary to take preventive measures to reduce the psychological damage caused by pandemics. According to the results of the present study, the promotion of psychological capital is one of these preventive measures in this regard. Psychological capital is one of the most important indicators of positive psychology and there is a special emphasis on positive psychology in psychology. Also, psychological capital, unlike personality traits, is a variable that can be promoted, so it is suggested that due to the approaching time of resumption of face-to-face education in universities and the need to follow health protocols to prevent the spread of the virus among students in face-to-face classes, psychological capital promotion courses for students should be held in order to somehow reduce the physical and psychological damage caused by pandemics such as COVID-19.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of Salman Farsi University of Kazerun. The patients/participants provided their written informed consent to participate in this study.

Author contributions

S.J and P.A contributed to the study conception and design, material preparation, data collection and analysis. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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