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RESEARCH ARTICLE

Evaluation Of the Association Between Stress of Covid-19 And Resilience of Healthcare Personnel of Iran University of Medical Sciences

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ABSTRACT

Introduction: Physicians and other healthcare personnel have an important role during epidemic of public health crises such as COVID-19 pandemic . It has been observed that this pandemic has increased the stress of different communities, especially medical staff. Since the widespread of this disease, no research has been conducted on the effects of this pandemic on the stress and resilience of pediatric and emergency assistants of Iran. The present research aims to evaluate the association between resilience and stress of coronavirus (COVID-19) in pediatric and emergency assistants of Iran University of Medical Sciences in 2021.

Method: The present research is a cross-sectional study. The statistical population included 52 pediatric and emergency assistants of Ali Asghar and Rasoul Akram hospitals in Tehran , 2021. The census sampling method was implemented for selecting the samples. For deliberating content validity and reliability, 30 questionnaires were initially examined and after confirmation , other samples were examined. In the present study, 2 questionnaires were used and 52 people responded to them, and then the two components of content validity ratio and content validity index (CVI and CVR) were evaluated. For determining the reliability , the Cronbach's alpha coefficient formula was implemented, after calculating Conor and Davidson resilience alpha, (CD-RIS) the score 0.90 and for the anxiety scale of coronavirus in pediatric and emergency assistants, digit 0.89 was obtained, and considering that both of them are greater than. 0.7 , appropriate reliability was obtained. Considering the normality of the data, Pearson correlation coefficient was used for analyzing the association between resilience and stress in pediatric and emergency assistants .

Results: Since sig was higher than 0.05 (0.1), the null hypothesis was confirmed and the opposite hypothesis was rejected, and no significant association was found among these two variables (P = 0.6). The results also demonstrated that there was no association between resilience and stress in assistants and residents. Since there was no association among the two variables, the intensity and directions were not assessed. The findings showed that most pediatric assistants and residents were stressed about the new coronavirus disease and the health of individuals that are close to them. According to the chi-square test and probability value, it was found that there was no significant association among the demographic characteristics and stress of coronavirus in pediatric and emergency assistants and their resilience scale.

KEYWORDS:
COVID_19- Anxiety, Resilience

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INTRODUCTION

In December 2019, outbreak of a new virus occurred in Wuhan, China (Zhu et al., 2020) which caused an acute respiratory syndrome and virus is called Coronavirus 2 (SARS-CoV-2) (Organization, 2020) . The virus causes respiratory and gastrointestinal symptoms in human, ranging from cold to more severe diseases such as bronchitis, pneumonia, acute respiratory syndrome (ARDS), blood clotting, multiple organ failure, and death (Cabeça et al 2013. Woo et al 2005) . The international outbreak of the virus led to rapid consequences, and COVID-19 was introduced as pandemic by the World Health Organization (WHO) on March 11 (Organization, 2020).

The new coronavirus disease is one of the main health problems of the last century. The effects of this disease could be observed in all countries, continents, races and economic groups, and these problems needed specific reactions including quarantine of entire countries, school closures, social isolation, and the normal life was suddenly changed (Shanafelt et al., 2020). Health care professionals provide health care for these patients. The rapid spread of this virus and the severity of symptoms in some infected people have led to limitations in health care systems. Although the shortage of necessary ventilators in hospitals for caring the growing number of critically patients is well explained, but in the absence of adequate health care staff, additional equipment and beds would not be useful (Lai et al., 2020, Chen et al., 2013)

Unclear prediction, high scarcity of resources for tests and treatments, health care protection from the disease, imposition of unfamiliar public health measures, increasing financial losses, and different messages from officials, are the major factors that can cause stress, which could undoubtedly lead to extensive emotional stress and a high risk of mental diseases in relating to COVID-19. Health staff have an important role in addressing these emotional consequences. Public health problems might affect health, safety, and well-being (e.g., insecurity, confusion, emotional problems, and stigma) and communities (due to economic loss, closure of works and schools, insufficient resources for response medicine and distribution of needs shortage), and such efficacies can range from emotional reactions (including anxiety or metal problems), unhealthy manners (including drugs overuse), and incompliance of public health guidelines (including quarantine and vaccination) to people with the disease. A major study on catastrophic psychological health of the population demonstrated that emotional distress emotional stress is prevalent in affected individuals, and it was a result that can be replicated in people affected by the new coronavirus (Pfefferbaum and North, 2020). The epidemic of coronavirus majorly affected the traditional methods of residency programs. Assistants have important roles in the education and development of resident's strengthening . Their sacrifices can be inspiring for anyone who have contacts with them. (Rakowsky et al., 2020) Also, health staff may be involved in mental disorders following stressful events in the community. Following the widespread of the SARS-CoV in Singapore in the year 2003, 27% of hospital staff had mental problems. (Lin et al., 2007). Also, during the SARS-CoV widespread in Taiwan, many emergencies department staff experienced post-traumatic stress. ED staff have also had further severe symptoms of PTSD than psychiatric warfare staff (Lee et al., 2018). After the COVID-19 outbreak in China, high frequency of psychological stress was observed amongst the general population, which demonstrated a negative relationship with resilience. Psychological resilience is a major objective for psychological intervention in public health hard situations (Ran et al., 2020). Recent research in Wuhan showed that women, nurses and health care workers are vulnerable against depression, anxiety, and insomnia. (Lai et al., 2020) Resilience, dynamic process and successful coping with adversity are considered as a new field in medical sciences. Various studies have demonstrated less resilience among assistants than the general population (McFarland and Roth, 2017; Bird et al., 2017). On the other hand, resilience and ability of coping with difficulties may protect health staff from common harms in workplace and personal stressful factors and the tendency to burn out (Epstein and Krasner, 2013) . Recent studies demonstrated that cognition resilience is an agent among stress and mental health status (Hao et al., 2015 , Howell et al., 2020) and may reduce the adverse stress effects (Poole et al., 2017, Sheerin et al., 2018). Physicians should face vital decisions for their patients in absence of their family members. The emotional trauma in physicians would be increased if they are facing high mortality, including infection and worsening of co-workers. (Huang et al., 2020). The biggest causes of burnout are time pressures, chaotic environment, non-control over working conditions and unshared vision between providers and managers (Linzer et al., 2009). In an article 2018, the National Academy leaders in Medicine, the American Medical Associations, and the Graduate Medical Education Accreditation Council announced that burnout, depression, and suicide in physicians have reached a critical level. (Dzau et al., 2018) . Higher stress levels are related with lower resilience (Simpkin et al., 2018). Mindfulness-associated resilience interventions for physicians in different fields have not increased stress or burnout actions (Goldhagen et al., 2015) . Endeavors to increase resilience and flexibility in physicians might provide an opportunity to reduce their depression and burnout (Simpkin et al., 2018) Various features that may improve productivity, including emotional intelligence, empathy, and mindfulness, can increase resistance in these trainees. (Mayer et al., 2000). Considering nature of academic environments in healthcare field, which are full of stress, mental health should be emphasized as a priority in these students, so that it could help them in understanding, recognizing and creating opportunities to improve mental health and reduce job burnout (Johnson et al., 2020). Novel studies must be based on early detection of depression and anxiety in students and providing appropriate resources (Aherne et al., 2016, Moum, 2006). Because understanding the sources of stress and their particular fears prior to reaching efficient approaches for supporting health staff is important. By having focus on these concerns, instead of teaching general approaches to reduce stress or resistance, it should be the main subject for supportive efforts (Shanafelt et al., 2020). Supporting the mental well-being and care staff

resilience to ensure global recovery from epidemics COVID-19, is essential (Huang et al., 2020). Also, emotional supports are necessary for patients who have significant mental health problems, especially during an epidemic (Chen et al.). The aim of the present research was to assess the association among resilience and stress in pediatric and emergency assistants of Iran University of Medical Sciences.

Analysis method

The present research is the cross-sectional study. 52 pediatric and emergency assistants of Ali Asghar and Rasoul Akram hospitals in Tehran who were studied in 2021 were evaluated. The census sampling method was used for selecting the statistical population. Various wards of hospital were assessed, and resilience and anxiety questionnaires were given to the health care staff. The ethical code of the research is IR.IUMS.FMD.REC.1399.786. The aims of the study were explained to the samples and written consent was obtained from them. Then, the demographic information form and the related questionnaires were completed. During this stage, the researcher was supervising the method of completing the questionnaires and answered the possible questions. After that, the forms and questionnaires were collected for performing statistical analyses. The individuals were assured that the information would remain confidential. For assessing the validity and reliability of the content, thirty questionnaires were first reviewed and following the confirmation of the reliability, other samples were reviewed. In this study, 2 questionnaires were used and 52 people responded to these questionnaires, and two components including content validity ratio and content validity index, (CVI and CVR) were evaluated using the five-point Likert scale. For determining the reliability of the research tool, the Cronbach's alpha coefficient formula was implemented, and after calculation, Conor and Davidson resilience alpha (CD-RIS) was 0.90 and anxiety scale for patients with COVID-19 was 0.89; since both of these values were greater than 0.7 , it was concluded that the test had appropriate reliability. The resilience form included 25 questions and the answers were expressed in a 5-point-scale, and the samples could choose one of the 5 options for each question. The following options were used for scoring: totally incorrect = 0, infrequently true = 1, occasionally true = 2, frequently true = 3, always true = 4, . The higher scores on the resilience scale indicated greater resilience. In the anxiety form, which was completed by pediatric and emergency assistants, included 18 questions and the answer to each question was presented with 4 options that people chose one of them for each question. The scoring method was as follows : never = 0 , sometimes = 1 , most of the time = 2, always = 3; The higher scores in the anxiety Scale indicated the higher anxiety of the samples.

The results of study of demographic factors indicated that the percentage of women was 78.85% and the age range of 30-40 years with 65.39% was the most common among the studied individuals. The frequency of work experience of 1-10 years was 86.54%. The frequency of married individuals was 59.62%. The grade of education was defined between 1 to 3 years, and three years of study had the highest percentage among the studied samples with 46.2% . Considering these factors and chi-square test and amount of p-values, it can be found out that there is no significant association between demographic characteristics and the anxiety of coronavirus and resilience scale, and the P-values of these factors in anxiety and resilience scales were higher than the level of significance.

Table 1: demographic characteristics of studied individuals

variables	classification	frequency	percent	Z2	p-value
gender	Woman man	41 11	78.85 21.15	0.567	0.345
age	20-30 30-40 40-50	34 11 7	65.39 21.15 23.46	27.34	0.695
Work-experience	1-10 10-20	45 7	86.54 13.46	3.45	0.455
grade	1 2 3	10 18 24	19.20 34.6 46.2	2.196	0.0978
Marital status	Single married	21. 31	40.38 59.62	2.456	0.0789

Descriptive statistics: In this stage, the descriptive statistics of the two questionnaires were reviewed. This information included mean, mode, standard deviation, data minimum, data maximum , skew ness and elongation. The results were listed in the following two tables.

questionnaire A													
Resilience		Q1Q1	Q1Q2	Q1Q3	Q1Q4	Q1Q5	Q1Q6	Q1Q7	Q1Q8	Q1Q9	Q1Q10	Q1Q11	Q1Q12	Q1Q13
Valid	mean	2.2500	1.8462	2.0577	2.4423	2.4231	3.0577	2.2885	1.9423	2.0000	2.0769	2.0385	2.4423	2.4615
	median	2.0000	2.0000	2.0000	2.0000	2.0000	3.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
	Mode	2.00	1.00	1.00	2.00	2.00	3.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00

	Standard deviation	.78902	.95762	1.0555	.77746	.95684	.89472	.93592	.87253	.99015	1.0067	.83927	.87253	1.07487
	Skew ness	1.261	1.156	.714	.330	.996	.226	.425	1.035	.882	.560	.340	.828	.645
	elasticity	2.536	1.220	-.229	-.203	1.335	-.213	.110	1.763	.441	-.747	-.599	1.446	.050
	minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	maximum	5.00	5.00	5.00	4.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	5.00
	total	117.00	96.00	107.00	127.00	126.00	159.00	119.00	101.00	104.00	108.00	106.00	127.00	128.00

questionnaire A														
Resilience		Q1Q14	Q1Q15	Q1Q16	Q1Q17	Q1Q18	Q1Q19	Q1Q20	Q1Q21	Q1Q22	Q1Q23	Q1Q24	Q1Q25	
Valid	mean	2.7308	2.0962	2.4808	2.2115	2.5192	2.5577	2.9038	2.2115	2.4808	2.8654	2.1731	2.0962	
	median	2.5000	2.0000	2.0000	2.0000	2.0000	2.0000	3.0000	2.0000	2.0000	3.0000	2.0000	2.0000	
	Mode	2.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00	1.00	
	Standard deviation	1.0685	.97538	.99981	.91473	.82819	.89472	.86907	.95664	.98000	1.1886	1.0796	1.0893	
	Skew ness	.870	1.252	.728	.997	.906	.845	.191	1.092	.706	.124	1.392	1.033	
	elasticity	.207	1.796	.631	1.786	1.702	.725	.188	1.468	.250	-.813	1.732	.895	
	minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
	total	142.00	109.00	129.00	115.00	131.00	133.00	151.00	115.00	129.00	149.00	113.00	109.00	

questionnaire B														
Resilience		Q2Q1	Q2Q2	Q2Q3	Q2Q4	Q2Q5	Q2Q6	Q2Q7	Q2Q8	Q2Q9	Q2Q10	Q2Q11	Q2Q12	Q2Q13
Valid	mean	2.3654	1.9423	2.2500	2.0192	2.0000	1.8462	2.9231	1.5385	1.7692	1.4808	1.4038	1.3462	1.5769
	median	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	3.0000	1.0000	2.0000	1.0000	1.0000	1.0000	1.0000
	Mode	2.00	2.00	2.00	2.00	2.00	1.00	3.00	1.00	2.00	1.00	1.00	1.00	1.00
	Standard deviation	2.8562	.68990	.74566	.85154	.82457	.82568	.88797	.64051	.75707	.72735	.74780	.62260	1.4996
	Skew ness	1.604	.439	.360	.557	1.032	.516	-.270	.782	.699	1.182	1.513	1.632	1.125
	elasticity	1.088	.370	.041	-.180	2.127	-.727	-.647	-.366	.054	-.040	.595	1.3462	1.328
	minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	maximum	22.00	4.00	4.00	4.00	5.00	4.00	4.00	3.00	4.00	3.00	3.00	3.00	11.00
	total	123.00	101.00	117.00	105.00	104.00	96.00	152.00	80.00	92.00	77.00	73.00	70.00	82.00

questionnaire B														
Resilience		Q2Q14	Q2Q15	Q2Q16	Q2Q17	Q2Q18								
Valid	mean	1.3885	1.4231	1.5577	1.4615	1.4615								
	median	1.0000	1.0000	1.0000	1.0000	1.0000								
	Mode	1.00	1.00	1.00	1.00	1.00								
	Standard deviation	.59177	.81064	.83437	.78907	.75657								
	Skew ness	1.890	1.930	1.218	1.568	1.255								
	elasticity	2.981	2.890	.455	1.676	.111								
	minimum	2.661	1.00	1.00	1.00	1.00								
	maximum	3.00	4.00	4.00	4.00	3.00								
	Total	67.00	74.00	81.00	76.00	76.00								

Description: The same individuals responded to the resilience and coronavirus anxiety questionnaires.

Q1Q1: In the time of occurring of changes, I have the ability to adapt.
Q1Q2: I have at least one person with him/her I could have a close and intimate relation at times of stress.
Q1Q3: In the times that there are no definite solutions for my problems, God or destiny could help.
Q1Q4: I could always find solutions for everything that happens to me.
Q1Q5: My recent successes can give me much confidence that I can deal with the possible challenges and problems.
Q1Q6: In times of facing problems, I try to see the funny side.
Q1Q7: The necessity of coping with problems can make me stronger.
Q1Q8: Generally, following diseases, injuries, and other difficulties, I go back to normal.
Q1Q9: I think that there is a reason for every event.
Q1Q10: I do my best in everyday and I don't think about the result.
Q1Q11: I'm sure that despite all obstacles, I can reach my goals.
Q1Q12: I will not get disappointed, even if things become frustrating.
Q1Q13: During crises, I know where to find help.
Q1Q14: I would not lose my focus under pressure.

Q1Q15: I like solving my own problems rather than letting other people to make all the decisions.
Q1Q16: I would not be rapidly discouraged if I fail.
Q1Q17: I the time of facing challenges and problems, I see myself an efficient person.
Q1Q18: If mandatory, I could make difficult and unanticipated decisions that affect others.
Q1Q19: I can manage undesirable emotions such as sorrow, fear and rage.
Q1Q20: When dealing with problems, sometimes it is mandatory to act on speculation.
Q1Q21: I have a considerable sense of purpose in life.
Q1Q22: I think, I can control my life.
Q1Q23: I look for challenges of life.
Q1Q24: I try hard to reach my goals, regardless of my problems.
Q1Q25: I'm proud of myself because of my advances.
Q2Q1: When I think about Covid-19, I become anxious.
Q2Q2: I'm tense when I think about Covid-19.
Q2Q3: I am very anxious about the widespread of the new Coronavirus.
Q2Q4: I'm afraid of the coronavirus disease.
Q2Q5: I think I may get the infection at any moment.
Q2Q6: With the slightest symptom, I consider I have the disease and test myself.
Q2Q7: I'm concerned about infecting the people around me.
Q2Q8: My anxiety due this disease, disrupts my daily activities.
Q2Q9: Attention of media to this virus concerns me.
Q2Q10: Thinking about this virus disturbs my sleep.
Q2Q11: Thinking about this virus makes me lose my appetite.
Q2Q12: I feel headache when I think about this virus.
Q2Q13: My body shakes when I think about this virus.
Q2Q14: In times that I think of this virus, I get goosebumps.
Q2Q15: This virus became a nightmare to me.
Q2Q16: My physical activities are decreased because of the fear of this disease.
Q2Q17: It is hard for me to talk about the disease with others.
Q2Q18: My heartbeat increases when I think about the virus.

Analysis

Mean: Based on the articles the research data, the mean for each of the 25 answers for Questionnaire A and 18 answers for Questionnaire B were listed in different tables. In the resilience questionnaire, variable 6 with a mean of 3.05 , had the highest value compared to the other questions. In the anxiety questionnaire, which measured the anxiety of coronavirus in pediatric and emergency assistants, variable 7 had the highest value with a mean of 2.92, in comparison with other variables. Considering the mean of all variables, it can be found that fewer people suffer from anxiety of the new coronavirus disease.

Mode : In questionnaire A, the mode of variable 20 was 3 and the other variables had modes 1 and 2. Therefore, in variable 20, higher people had chosen the right option . In fact, variable 20 of this form indicated that dealing with life problems is often necessary to act only on conjecture. In questionnaire B, variable 7 had mode 3 and the mode of other variables were numbers 1 and 2. Considering the mean of variable 7, which was close to 3, and its mode was also 3, it can be concluded that most pediatric assistants and residents are concerned about the widespread of coronavirus disease to people around them.

Standard deviation: In questionnaire A, variable 23 has a standard deviation of 1.1886, which was higher than other values and is disperse than other variables. In addition, in questionnaire B, variable 1 with a standard deviation of 2.8562 had higher dispersion compared to other variables. In general, can be concluded that there is less scatter in the data and most values had a standard deviation close to zero, which indicates mean adjacency.

Skewing and elasticity : A study was conducted on the skewing and elasticity data in all variables, and the findings showed that the data have normal skewing and elasticity, therefore, the data are also normal.

Analysis of the association between resilience and anxiety of coronavirus

Considering that the data had normal distribution, the Pearson correlation coefficient was implemented for analyzing the association among resilience and anxiety of coronavirus in pediatric and emergency assistants. The Pearson coefficient is majorly used when the variables are parametric, which indicates they have a normal distribution and are at an intermediate / relative level. (Miser, Gamest and Garino, 164: 1391). Since sig was higher than 0.05 (0.1), the null hypothesis is confirmed and the opposite hypothesis is rejected, and there is no significant correlation between these two variables (P = 0.6). Also, the coefficient of this correlation for 52 data was 0.2. According to the findings, it can be understood that anxiety of COVID-19 in pediatric and emergency assistants had no significant association with resilience. Considering that there is no association between the two variables, the intensity and direction of the association was not studied.

Based on the mean of most variables, it was concluded that few people are suffering from anxiety. Also, study of resilience demonstrated that that most people had good resilience in the face of problems . In terms of the relationship between these two scales, it can be examined in various aspects. One of the affective factors can be environmental conditions, which may not be suitable for people and would not have necessary focus to answer . However, considering that reliability was 0.86, this factor is not generally accepted, despite that it could be a effective. Another factor could be the location of the

hospitals. Patients who are admitted to the hospital and are not affected by COVID-19 or the hospital is not appertain to COVID-19 , would not be affected in terms of anxiety and resilience. However, there are various factors which can have effects on this unseen association.

DISCUSSION

In the present study the association between resilience and anxiety of coronavirus (COVID-19) in pediatric and emergency assistants of Iran Medical Sciences University was assessed in 2021. The findings demonstrated that few people suffer from stress. Also, study of resilience showed that according to the obtained averages and means, it can be observed that most people had appropriate resilience in confronting problems. Regarding the unseen relationship between these two variables, different aspects could be examined. According to the factors and chi-square test, and the obtained P-values, it can be observed that there was no significant relationship between demographic characteristics with resilience and anxiety of coronavirus in pediatric and emergency assistants. The P-values of these factors in anxiety and resilience scale are considerably higher than the significance level. The statistical population included 52 people and the questionnaires may have been responded at the appropriate or inappropriate time. On the other hand, the results of stress and resilience were majorly associated with demographic factors. In a study by Khoshnezhad et al. it was observed that fewer children with COVID-19 were hospitalized and a small number of nurses suffered from anxiety of COVID-19 . They rely on God more than anything else when there are no clear solutions for troubles. According to the results obtained from most of them, coping with stress makes them stronger (EBRAHIMI et al., 2020a). in different studies it has been observed that by providing the basic trainings and appropriate support, performance and satisfaction would be improved ((Ebrahimi et al., 2020c, Ebrahimi et al., 2020d, Ebrahimi et al., 2020b). In a similar study, Lasheras et al. stated that mean level of anxiety in medical students was not increased during the COVID-19 outbreak. (Lasheras et al., 2020) . This can be explained by different factors. First of all , medical students had a higher understanding of the prognosis and symptoms of coronavirus disease and a broader knowledge about the vrius compared to than their peers, and perhaps it is due to their significant use of official sources of information (WHO website, Ministry of Press Releases , Health and hospital announcements) (Saddik et al., 2020) . Mosheva's study demonstrated that the factors that are considerably associated with anxiety in multivariate linear regression include mental fatigue, anxiety of infection, worrying about family members infection, and sleep problems. This study also showed that resilience has a negative relationship with anxiety . (Mosheva et al., 2020).

During the coronavirus pandemic, medical staff in radiology department showed low levels of resilience, and further attention should be paid to factors including high stress, lack of informstion about the coronavirus disease and treatments, lack of protective equipment, and appropriate interventions must be used for improving level of resistance in employees. The results showed resilience in women was significantly lower compared to male radiology staff (Huang et al., 2020). Wuhan health care personnel were experiencing high stress at the peaks of the pandemic, and a large number of them had stress and depression. They also showed higher vulnerability to mental pressures. The limitations of this research included a relatively small sample size, the data was collected through smartphones, the samples were selected from two hospitals (Chen et al.). Considering the sampling environment, the present study was performed in one hospital, which was not the center of treatment of COVID-19 patients, and maybe the hospital's policies and supports have affected the results .

The findings indicated that the pandemic may be associated with other disorders including anxiety, signs of depression, insomnia, fear, repudiation, and rage. These problems could have effects on normal activities, economical situations, and health organizations (Torales et al., 2020) . In our study most pediatric assistants and residents were concerned about transmission of the disease to their families, and in a study by Luceño-Moreno employees were concerned about family members infection . (Luceño-Moreno et al., 2020). The findings of another cross-sectional study (45 people) on medical staff showed that physician empathy and emotional intelligence were not significantly related with burnout and resilience. (Olson et al., 2015). Similarly, in our study, there was no considerable association between anxiety and resilience, but in another study, 86 pediatricians from 4 children's hospitals in North America were examined in 2015, and the findings demonstrated that the level of flexibility and low resilience was strongly related to depression and burn out. Efforts to increase resilience and flexibility amongst health staff provide an opportunity to reduce residents' depression and burnout (Simpkin et al., 2018). In our study, the hospital provided supports and protective equipment to health staff in all parts of the hospital, which could have been effective in decreasing their stress. A study by Saddik evaluated strategies for support and screening (Saddik et al., 2020). Anxiety due to the new corona virus disease could be addressed with organizational interventions, increasing social supports, ensuring adequate organizational support, providing mental supports, and providing interventions for management of resilience and stress (Labrague and De los Santos, 2020).

In another research, analysis of the association different these factors demonstrated that economic impacts and their efficacies on normal life and academic activities, were positively related to levels of anxiety ($P < 0.001$). Also, social supports had a negative relation with anxiety levels ($P < 0.001$). During pandemics, monitoring the mental health of students is recommended (Cao et al., 2020). This study aimed to evaluate the association among resilience and anxiety of coronavirus (covod-19) in pediatricians and emergency room assistants, and the findings showed that there was no significant association among the studied variables. A large number of individuals who experience challenging or traumatic events,

have high resilience and would not suffer from chronic mental effects (Rubin et al., 2005). It has been observed that resilience is associated with reduced anxiety and depression (Barzilay et al., 2020). Similarly, in our research, the studied individuals did not show any specific anxiety symptoms .

CONCLUSION

In general, the present research demonstrated that most pediatricians and emergency assistants were stressed about the transmission of coronavirus disease to people close to them, and a small number of people were experiencing anxiety of coronavirus . No significant association was found among the variables of anxiety and resilience (P = 0.6). Also, the correlation coefficient for the data of 52 individuals was 0.2 . Proper resilience is a personality trait that helps an individual in coping with stressful or traumatic events . It was observed that people with higher medical information were likely to have higher flexibility, which could decrease their anxiety levels. According to the chi-square test and obtained p-value, it could be concluded that there was no significant association between demographic characteristics of individuals and stress and resilience.

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