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Relationship between anxiety and resilience of coronavirus (COVID-19) in pediatric and emergency assistants of Iran Medical Science University, 2021

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ABSTRACT

Introduction: Physicians and other healthcare personnel play a major role at time widespread public health crises such as COVID-19 epidemic. This epidemic is likely, increase anxiety in the community, especially among medical students. Since COVID-19 outbreak, studies about this epidemic effects on anxiety and resilience in pediatric and emergency assistants of Iran have not been conducted. This study investigates the relationship between resilience and anxiety of coronavirus (COVID-19) in pediatric and emergency assistants of Iran Medical Sciences University in 2021.

Method: This research is the result of a cross-sectional study. The statistical population of this study includes 52 pediatric and emergency assistants of Ali Asghar and Rasoul Akram hospitals in Tehran, 2021. To select a statistical sample, a census sampling method was used and was filled out by pediatric and emergency assistants. To deliberate content validity and reliability, we first examined 30 questionnaires and after confirming it, we examined other samples. In this study, we used 2 questionnaires and 52 people responding to them, and then we measured two components called content validity ratio and content validity index, (CVI and CVR). It was used the quintuple Likert scale. To determine the research reliability, we used the Cronbach's alpha coefficient formula, 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 were obtained, since both of them are greater than. 0.7, so this test has acceptable reliability.

Data analysis: Due to the normality of the data, we used Pearson- correlation coefficient to analyze relationship between resilience and anxiety coronavirus (COVID-19) in pediatric and emergency assistants. Because sig is greater than 0.05 (0.1), the null hypothesis is confirmed and the opposite hypothesis is rejected, so there is no significant correlation between these two variables (P = 0.6). Also, the coefficient of this correlation for 52 data is 0.2. According to the results, we find out that there is no significant relationship between resilience and anxiety in assistants and residents. Since there is no correlation between the two variables, the intensity and directions are not studied.

Results: The results showed that most pediatric assistants and residents are concerned about the COVID-19 contagious to the people around them. Fewer people have anxiety of coronavirus. There is no significant relevancy between these two variables (P = 0.6). Also, the correlation coefficient for 52 data is 0.2. Proper resilience is a personality trait, which enables people to cope better with stressful or traumatic events. People who have health literacy in disease are more likely have adequate flexibility, which in turn can decrease their anxiety level. According to the chi-square test and probability value, we find out that there is no significant relationship between individual's demographic characteristics and anxiety of coronavirus in pediatric and emergency assistants and their resilience scale.

Keywords: COVID_19- Anxiety, Resilience

INTRODUCTION

In December 2019, a new infectious disease outbreak occurred in Wuhan, Hubei Province, China [1] caused by Acute Respiratory Syndrome of Coronavirus 2 (SARS-CoV-2) [2] . It likely cause to respiratory and gastrointestinal symptoms in human, ranging from cold to more severe illnesses such as bronchitis, pneumonia, acute respiratory syndrome (ARDS), blood clotting, multiple organ failure, and death [3-8] . since spreading of the virus with international consequences was fast, COVID-19 was introduced as epidemic disease by the World Health Organization(WHO) on March 11 [2].

COVID-19 disease has become one of the major health crises of one generation and also affected global mental health and caused psychological problems in all members of society around the world [9]. This epidemic has affected all nations, continents, races and economic groups, required responses such as quarantine entire communities, school closures, and social isolation. Daily life have suddenly changed [10]. Health care professionals provide health care for these patients. The fast spread of COVID-19 and the severity of symptoms in some infected people have led to limitations in health care systems. Although the shortage in necessary ventilators ICUs to care for the growing number of critically patients is well explained, but

in the absence of adequate manpower additional equipment and beds won't useful [11-14]

Unclear predictions, high scarcity of resources for testing and treatment, and health care protection from infection, imposition of unfamiliar public health measures, large and growing financial losses, conflicting messages from officials, are the most important stressful factors. It will undoubtedly help to widespread emotional distress and a high risk of mental illness in related to COVID-19. Health care providers play an important role in addressing these emotional consequences. Public health emergencies may affect health, safety, and well-being (e.g., insecurity, confusion, emotional isolation, and stigma) and communities (because economic loss, closure, work and school, insufficient resources for response medicine and distribution of needs shortage). These effects can range from emotional reactions (such as anxiety or psychiatric conditions), unhealthy manners (such as substance overuse), and incompliance of public health guidelines (such as home quarantine and vaccination) to people with the disease. Extensive public population research on catastrophic mental health shown that emotional distress is pervasive in affected populations - a finding that should be replicated in populations affected by the COVID-19 pandemic [15]. The COVID-19 epidemic significantly influenced on the traditional methods of residency programs. Assistants play an important role in the education and development of resident's strengthening. Their sacrifices to patients are inspired by anyone who is in contact with them. [16] Also, health care providers may be involved in psychiatric disorders after coping with stress full events in the community. In 2003, during the SARS-CoV outbreak in Singapore, 27% of health care workers reported psychiatric symptoms[17] during the Ebola outbreak in Sierra Leone in 2014 and in the Democratic Republic of the Congo in 2018. , Medical staff reported anxiety and stigma among those who were in direct contact with infected patients [18] During the SARS-CoV outbreak in Taiwan in 2003, many emergency department staff and the psychiatric, suffered from post-traumatic stress disorder. Emergency department staff have also showed more severe symptoms of PTSD than psychiatric warfare staff [19]. At the COVID-19 epidemic peak time in China, there is a high prevalence of psychological distress among the general population, which has a negative relationship with resilience. Psychological resilience is a key aim for psychological intervention in public health emergencies [20]A new study in Wuhan, China indicated that women, nurses and health care workers –especially at work condition, are vulnerable of depression, anxiety, insomnia. [11] Resilience, dynamic process and successful coping with adversity, is considered as a new field in medical education. Preliminary studies have shown less resilience among assistants than the general population [8, 21-23]. In other hand ,resilience and ability of overhanging difficulties may protect experts against common harms in workplace and personal stressful factors and the tendency to burn out [24]. Previous studies have shown that cognition resilience is an agent between stress and mental health status [25, 26] and may reduce the adverse stress effects [27, 28] .Physicians must make vital decisions for their patients in absence of their family members. The emotional trauma in physicians will increase when they have witnessed high mortality, including infection and worsening of co-workers. [29]with symptoms of depression and anxiety [30-32] The biggest causes of burnout are time pressure, chaotic environments, non-control over working conditions and unshared vision between providers and managers [33]. In a statement 2018, the National Academy leaders in Medicine, the American Medical Associations, and the Graduate Medical Education Accreditation Council announced that physician burnout, depression, and physician suicide had reached to “crisis levels." [34] . Higher stress level from uncertainty are associated with less resilience [35]. Mindfulness-based resilience intervention for residents in several specialties has not increased stress or burnout actions [36] .Efforts to strengthen resilience and flexibility among residents may provide an opportunity to reduce their depression and burnout [35] Numerous features that improve productivity, including emotional intelligence, empathy, and mindfulness, can help resistance explaining in these trainees. [37] more awareness of factors which play a role in physician burnout and the implementation of strategies that enhance physician resilience , are both positive developments that help to reduce medical errors [38].Due to the stressful nature of academic environments, In healthcare field, health should be emphasized as a priority in health student's curricula ,so they can understand, recognize and create opportunities to improve mental health and reduce job burnout [39]. New studies should be based on early detection of depression and anxiety in students and providing appropriate resources [40, 41]. To understand the sources of anxiety and their particular fears before reaching effective apt coaches to support health care professionals is important. By focusing on these concerns, instead of teaching general approaches to reduce stress or resistance, it should be the main subject for supportive efforts [10]. Supporting the mental well-being and caregiver’s resilience to ensure global recovery from epidemics COVID-19, is essential. [29]. Emotionally support methods and work with patients who have significant mental health problems during an epidemic, should be provided [12]. The aim of this study was to investigate the relationship between resilience and anxiety of coronavirus (COVID-19) in pediatric and emergency assistants of Iran Medical Sciences University in 2021.

Analysis method: This research is the cross-sectional study. The statistical population of this research includes 52 pediatric assistants and emergency assistants of Ali Asghar and Rasoul Akram hospitals in Tehran in 2021. To select the statistical sample, we used census sampling method and pediatric and emergency assistants took part in it. We referred to different parts hospital, resilience and anxiety questionnaires were given to pediatric and emergency assistants. The objectives of the study were explained to the individuals and willingly participate in the study and obtain informed consent, then the demographic information form and the relevant questionnaires were filled out. When filling out the questionnaire, the researcher was supervising how it was completed and answered their questions. Then, the forms and questionnaires were

collected and subjected to statistical analysis. We assured individuals their information would remain confidential. . To assess the validity and reliability of the content, we first reviewed 30 questionnaires and after confirming the reliability, we reviewed other samples. In this study, we applied 2 questionnaires and 52 people who responding to these questionnaires, we measured two components called content validity ratio and content validity index, (CVI and CVR). it was done using the five Likert scale. To determine the reliability of the research tool, we used the Cronbach's alpha coefficient formula, which after calculating, Conor and Davidson resilience alpha (CD-RIS) was 0.90 and anxiety scale for patients with COVID-19 was 0.89, because both of them greater than 0.7 , so test has acceptable reliability. In the resilience questionnaire, 25 questions were asked and the answer to each question was presented in 5 forms that people would choose one of the 5 options for each question. The scoring scale was as below: completely incorrect = 0, rarely true = 1, sometimes true = 2, often true = 3, always true = 4, . So the higher scores on the resilience scale indicate greater resilience. In the anxiety in pediatric and emergency assistants with COVID-19 Inventory, 18 questions were asked and the answer to each question was presented in the form with 4 options that people chose one of the 4 options for each question. The scoring scale was as: never = 0, sometimes = 1, most of the time = 2, always = 3, so the higher scores on the anxiety Scale of coronavirus in pediatric and emergency assistants indicate the higher anxiety of that people.

According to the above demographic factors, we find out that the women number was 78.85% and the age range of 30-30 years with 65.39% was the highest among residents and assistants. Work experience of 1-10 years was 86.54%, which is a significant percentage. Married people was 59.62%. The level of education is 1 to 3 years, and the third year, has a higher percentage than other years of study with 46.2%,. Considering these factors and chi-square test and amount of probability, we find out that there is no significant relevancy between demographic characteristics of individuals and the anxiety of coronavirus in pediatric and emergency assistants and resilience scale. Clearly, there is no significant difference between the two. The probability values of these factors in anxiety and resilience is significantly high.

Table 1: demographic characteristics of study population

variables	classificatio	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 part of the research, we review the descriptive statistics of both questionnaires. Research descriptive information includes mean, mode, standard deviation, data minimum, data maximum, skew ness and elongation. This information is listed in the following two tables. Before entering the statistical information, it should be mentioned that in questionnaire (A) about, 25 questions were asked and the answer to each question was presented in 5- options form. People chose one item out of 5 options for each question and in questionnaire (B), 18 questions were asked and the answer to each question was presented in 4 options form that people would have to choose one of the 4 options for each question.

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	
	maximu m	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	109.0 0	129.0 0	115.0 0	131.0 0	133.0 0	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	Q2Q 16	Q2Q17	Q2Q 18								
Valid	mean	1.3885	1.4231	1.557 7	1.4615	1.461 5								
	median	1.0000	1.0000	1.000 0	1.0000	1.000 0								
	Mode	1.00	1.00	1.00	1.00	1.00								
	Standard deviation	.59177	.81064	.8343 7	.78907	.7565 7								
	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								
	جمع	67.00	74.00	81.00	76.00	76.00								

Description: The respondents of the resilience and coronavirus anxiety questionnaire were the same.

Q1Q1: When a change occurs, I can adapt to it.
Q1Q2 **:**There is at least one person with whom I have a close and intimate relationship during times of stress.
Q1Q3: When there is no clear solution to my problems, sometimes God or destiny can help**.**
Q1Q4: I can think of a solution to everything that comes my way.
Q1Q5: The successes I have had in the past have given me so much confidence that I can deal with the challenges and problems ahead.
Q1Q6: When I face problems, I try to see the funny side of them.
Q1Q7: The need to cope with stress makes me stronger.
Q1Q8: Usually after illness, injury and other hardships, I go back to normal.
Q1Q9: I believe that there is a reason for every good or bad event.
Q1Q10: I try my best in everything and I don't care about the result.
Q1Q11: I believe that despite the obstacles, I can achieve my goals.
Q1Q12: I do not despair even when things get frustrating.
Q1Q13: In times of stress and crisis, I know where to turn for help.
Q1Q14: When I'm under pressure, I do not lose my focus and I think right.
Q1Q15: I prefer to solve my own problems rather than others making all the decisions.
Q1Q16: I will not be easily discouraged if I fail.
Q1Q17: When I'm dealing with the challenges and problems of life, I consider myself a capable person.
Q1Q18: If necessary, I can make difficult and unexpected decisions that affect others.
Q1Q19: I can control unpleasant emotions such as sadness, fear and anger.
Q1Q20: In dealing with life's problems, sometimes it is necessary to act solely on speculation.
Q1Q21: I have a strong sense of purpose in life.
Q1Q22: I feel, I'm in control of my life.

Q1Q23: I like the challenges of life.
Q1Q24: I strive to achieve my goals, regardless of the obstacles ahead.
Q1Q25: I'm proud of myself for my progress.
Q2Q1: Thinking about Corona makes me anxious.
Q2Q2: I feel tension when I think about the Corona threat.
Q2Q3: I am very concerned about the outbreak of the Coronavirus.
Q2Q4: I'm afraid to be infected with the coronavirus.
Q2Q5: I think I might get the coronavirus at any moment.
Q2Q6: At the slightest sign I think I have the coronavirus disease and check myself.
Q2Q7: I'm worried about the transmission of coronavirus to those around me.
Q2Q8: Coronavirus anxiety has disrupted my activities.
Q2Q9: Media attention to the Coronavirus worries me.
Q2Q10: Thinking about the Coronavirus has disturbed my sleep.
Q2Q11: Thinking about the Coronavirus has made me lose my appetite.
Q2Q12: I get a headache when I think of the Coronavirus.
Q2Q13: My body trembles when I think of the Coronavirus.
Q2Q14: When I think of the Coronavirus, I get goosebumps.
Q2Q15: The Coronavirus has become a nightmare for me.
Q2Q16: My physical activity is reduced due to fear of the Coronavirus disease.
Q2Q17: It is difficult for me to talk about the Coronavirus with others.
Q2Q18: I get a heartbeat when I think about the Coronavirus.

Analyze

Mean: Base on the studies performed on the research data, the mean for each of the 25 variables for Questionnaire (A) and 18 of Questionnaire (B) are listed separately in the tables above. In questionnaire (A), which was in fact a questionnaire with resilience scale, variable 6 with a mean of 3.05, had a higher mean than the other questions. In questionnaire (B), which was actually a questionnaire related to anxiety of coronavirus in pediatric and emergency assistants, variable 7 was higher with a mean of 2.92 than other variables. By Given the mean of all variables, we find out that fewer people suffer anxiety of coronavirus (COVID-19).

Mode: In questionnaire (A), variable 20 with mode 3 and the other variables have modes 1 and 2. So in variable 20, more people have chosen the right option. In fact, variable 20 of this questionnaire indicates in dealing with life problems, sometimes is necessary to act only on conjecture. In questionnaire (B), variable 7 has mode 3 and the other variables are assigned numbers 1 and 2. By Given the mean of variable 7, which is close to 3, and its mode is 3, we conclude that most pediatric assistants and residents are concerned about the spreading of coronavirus disease to those around them.

Standard deviation: In questionnaire (A), variable 23 has a standard deviation of 1.1886, which is higher than other numbers and is disperse than other variables. Also in questionnaire (B), variable 1 with standard deviation of 2.8562 has more dispersion than other variables. In general, we can say that there is less scatter in the data and most variables have a standard deviation close to zero, which indicates mean adjacency.

Skewing and elasticity: This studies conducted on the skewing and elasticity data in all variables, showed that the data have normal skewing and elasticity, so the data are also normal.

Correlation analysis of resilience with anxiety of coronavirus

Since data is normal, we used the Pearson correlation coefficient to analyze the correlation between resilience and anxiety of coronavirus in pediatric and emergency assistants. The main use of the Pearson coefficient is when the variables are parametric; means, they have a normal distribution and are at the intermediate / relative level. (Miser, Gamest and Garino, 164: 1391). Because sig is greater than 0.05 (0.1), the null hypothesis is confirmed and the opposite hypothesis is rejected, so there is no significant correlation between these two variables (P = 0.6). Also, the coefficient of this correlation for 52 data is 0.2. According to the results, we understand that anxiety of COVID-19 in pediatric and emergency assistants in residents has no significant relationship with their resilience. As there is no correlation between the two variables, the intensity and direction of the relationship are not studied.

According to the most variables mean, we concluded that fewer people are suffering from anxiety. Also in terms of resilience scale, according to the obtained averages, facing problems it can be seen that most people have good resilience. Regarding to the unseen relationship between these two scales, it can be examined in different aspects. One of these factors can be environmental conditions that are sometimes not suitable for people and do not have necessary focus to answer. However, because of study reliability o, which was 0.86, this factor is not generally accepted. But it can be a condition. Another factor could be the location and hospital patients. Patients who go to the hospital, if they are not affected by COVID-19 or if that hospital is not appertain to COVID-19, they will have no effect on anxiety and resilience. There are various factors which can effect on this unseen relationship.

DISCUSSION

This study investigated the relevancy between resilience and anxiety of coronavirus (COVID-19) in pediatric and emergency assistants of Iran Medical Sciences University in 2021. The results showed that fewer people suffer from this anxiety. Also in resilience scale, according to the obtained averages and means, we see that most people in confronting problems have good resilience. Regarding the unseen relationship between these two scales, we can be examining it in different aspects. According to the factors

and chi-square test, and even probability scale, we noticed there is no significant relationship between demographic characteristics and anxiety of coronavirus in pediatric and emergency assistants and also resilience scale. There is no significant difference between that two. The probability values of these factors in anxiety and resilience scale are significantly higher than the significance level, and it confirm the hypothesis that are not significantly different. Results showed, the sample size was 52 people. Questionnaires may have been responded at the appropriate or inappropriate time. On the other hand, the results of anxiety and resilience of coronavirus in pediatric and emergency assistants mostly related to demographic factors such as education level, age and gender. We can say that the higher the level of education of individuals, the more cautious they need. Khoshnejad et al., in research indicated that fewer children with COVID-19 were hospitalized and fewer nurses suffed from anxiety of COVID-19. They rely on God more than anything else when there are no clear solutions for troubles .at that time God and destiny are helpful. According to the majority of them, coping with stress makes them stronger [42]. Studies have shown that by providing the necessary training and appropriate support, performance and satisfaction will improve. [43-46] . In the Lasheras study stated that general level of anxiety in medical students does not seem to be increase during the COVID-19 outbreak. [47] . This can be explained by several reasons. First of all, medical students had a higher understanding of the prognosis and transmission of COVID and a broader knowledge of the disease rather than their peers , perhaps it is because of significant use of official sources of information (WHO website, Ministry of Press Releases , Health and hospital announcements) [48]. Motiva's investigations expressed that the factors which strongly associated with anxiety in multivariate linear regression, contain mental fatigue, anxiety of infection, worry about family members become infected, and sleep problems. This model also showed that resilience has negative relationship with anxiety. (β coefficient = −0.18; 95% confidence interval: −0.23 to −0.14; p <.0001;) [49]. Anxiety and resilience were not significantly related.

During the COVID-19 outbreak, medical staff in radiology department had low level of resilience. More attention should be paid to factors such as high perceived stress, female gender, lack of understanding of COVID-19 and protective measures, lack of protective equipment, and purposeful interventions should be performed to improve level of resistance in employees. The results showed that Gynecology resilience in radiology departments was significantly lower than male medical staff [29]. Wuhan health care personnel were under severe stress at the outbreak peak, and many of them experienced anxiety and depression. Wuhan Health Care staff showed greater vulnerability to stress and depression. This study limitation includes a relatively small sample size. Smartphone-based survey was collected. The participants of the health care staff were selected from two hospitals [12]. Because of sampling environment, the present study was only done in one hospital and it was not a corona reception center and maybe the hospital's policies and supports are effected on anxiety and resilience.

Results showed that the disease outbreak leads to other health problems such as stress, anxiety, depressive symptoms, insomnia, denial, anger and worldwide fear. Publics concerns affect daily behaviors, economics, prevention and decision-making strategies of policy makers, health organizations and health centers, which can weaken COVID-19 control strategies and lead to more worldwide complications and mental health requirements [50]. In our study most pediatric assistants and residents are concerned about coronavirus transmission to those around them, while in the Lucero-Moreno study employees are concerned about family member infection [51]. The results in a cross-sectional study (45 people) of pediatricians and residents of the year, showed that physician empathy and emotional intelligence were not significantly associated with burnout and resilience [52]. In the present study, there was no significant relevancy between anxiety and resilience, but in another study, 86 pediatric from 4 open children hospitals in North America were examined in 2015. The results showed the level of flexibility and low resilience was strongly associated with depression and burn out. Efforts to resilience strengthen and flexibility among residents provide an opportunity to reduce residents' depression and burnout [35]. In our study, the hospital provided support facilities and protective equipment to residents in all wards, which in decreasing their anxiety of corona outbreak may have been effective. Saddik's study recommended strategies for support and screening [48]. COVID-19 anxiety can be addressed through organizational interventions, enhancing social support, ensure adequate organizational support, provide psychological and mental support services, and provide resilience and stress management interventions [53].

In one study, relationship analysis outcomes showed that economic impacts and their effects on daily life as well as academic activities delay, were positively related to anxiety symptoms (P <0.001). However, social support has negative relevancy with anxiety level (P <0.001). During epidemics it is suggested that students' mental health be monitored [54]. This study wants to investigate the relationship between resilience and anxiety of coronavirus (covod-19) in pediatric and emergency room assistants therefore there was no significant correlation between variables. Many people who exposed to highly challenging or traumatic events, have flexible resilience and they are not suffering from long-term negative psychological effects [55]. Resilience helps to reduce concerns and even anxiety and depression[56] as in present study, people have not shown any specific anxiety symptoms.

CONCLUSION

The results showed most pediatric and emergency assistants were concerned about coronavirus disease contagious to people around them. Fewer people are suffering from anxiety of coronavirus. No significant relationship between these two variables of anxiety and resilience was observed (P = 0.6). Also, the correlation

coefficient for 52 data is 0.2. Proper resilience is a personality trait, which enables people to cope better with stressful or traumatic events. People with health diseases literacy, likely have more adequate flexibility, which can reduce their anxiety level. According to the chi-square test and probability value, we understood that there isn't any significant relationship between demographic characteristics of individuals and anxiety of coronavirus (COVID-19) and resilience scale.

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