CASE REORT

Fear of COVID 19 Pandemic: A case study in Iran

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ABSTRACT

Background: In December of last year, Coronavirus disease 2019 (COVID-19) was first identified in Wuhan ,China. The disease is likely to have serious consequences, especially for the physical and mental health of individuals.
Aim: To investigate the fear of coronavirus spreading and the feeling created after seeing a foreign tourist in Yazd is located in the center of Iran.
Methods: This cross-sectional study was conducted in February 2020 in the city of Yazd (before and afterstart the epidemic of COVID-19 in IR.Subjects were entered this research by convenience sampling method. Data gathering tool was a checklist and collected data were entered into IBM SPSS Statistics 18 software and analyzed with descriptive statistics (frequency and percentage) and Chi-square test.
Results: A total of 399 subjects were examined. The results of this study showed that the fear of the disease in before period was 40.1% and was significantly increased up to 84.5% during after period (P value <0.001). Also, the fear and stigma caused by seeing a foreign tourist was significantly higher in after period compared to the before period (P value <0.001).
Conclusion: The results of this study showed that fear of COVID-19 among people had been doubled after the official report of the first case of Iran. Meanwhile, the fear due to seeing foreign tourists had been higher in after start epidemic in IR than before start epidemic. Therefore, it is recommended that educational and prevention programs should be developed to control fear in individuals.
Keywords: COVID 19, Coronavirus, Fear, Yazd

INTRODUCTION

Currently, the pandemic of the COVID-19 is the most important global health challenge spreading to more than 210 countries[1]. This rapid and widespread expansion has caused serious social, economic, cultural and even political damage in the countries, so that even the meetings of the United Nations and many sports, cultural and scientific competitions between and within countries have been affected by this epidemic[2].
Although the virus is less deadly than other emerging viruses in the Corona family, such as SARS and MERS, it has a high rate of spread and pathogenic behavior that make it very difficult to control[3].
Originally an epidemic, the disease was declared a pandemic by the World Health Organization on March 11, 2020, indicating that the geographical extent of the disease is not limited and will infect a significant number of people around the world[4].

One of the psychological aspects of epidemics is fear[5]. Fear is defined as an unpleasant emotional state that is triggered by the perception of threatening stimuli[6]. Special situations such as outbreaks and epidemics of a disease cause fear of getting infected in many people. Sometimes this fear is so great and out of control that it causes suicide in some people[7,8].

This fear has also occurred in the case of COVID-19. For example, a study in Canada reported that of the 1354 adults, one-third of participants were concerned about COVID-19[9]. Meanwhile, in an online survey of 808 American adults, 56% of those participants were concerned or very concerned about the prevalence of COVID-19 in the United States. Another American study reported that participants were more concerned about Covid-19 than seasonal influenza (37% versus 27%)[10].

Communicability and the ability to spread as well as the considerable number of deaths of people around the world in less than a month led to such fear among them[11]. But the researchers of present study performed it while the disease was restricted to Wuhan in China and some restricted countries and spread around the world three to four weeks later and was declared as a pandemic. The aim of this study was to investigate the fear among the people of Yazd(a tourist city in Iran) of an epidemic of COVID-19 in China with a distance of thousands of kilometers from their place of residence.

MATERIALS& METHODS

This cross-sectional study was conducted in February 2020 in the city of Yazd in is located in the center of Iran. The study period was divided into two parts before and after start the epidemic of COVID-19 in Iran; First period on February 12-18, before the official report of the first case in IR (before period) and the second period on February 20-24, after the official report of the first case in Qom province of Iran (after period).

A total of 399 people (219 people in the first period and 180 people in the second period of time) were examined.

Sampling was performed street-based through convenience sampling method in which individuals from five parts of the city were selected and included in the study considering different socio-economic conditions.

Data gathering tool was a checklist included some questions on demographic information (age, gender, education, and occupation), and questions about COVID-19 (knowledge on the existence of the disease, fear of disease, how a person feels about people from infected areas). The collected data were entered into IBM SPSS Statistics18 software and analyzed with descriptive statistics (frequency and percentage) and Chi-square test. A significant level of 0.05 was considered for performing the statistical test.

RESULTS

A total of 399 subjects were examined, of which 236(59.1%) were male and 163(40.9%) were female. The mean age was 39.9 years in men and 36.5 years in women(P value <0.05). In terms of education, 113 individuals (28.4%) were educated under school year 12 (under diploma certificate), 145 (36.3%) had a diploma certificate and 141(35.3%) had a university degree. The findings showed that 381 participants (95.5%) were aware of the existence of coronavirus disease (COVID-19) at the time of the study.

The results of this study showed that the fear of the disease in before period was 40.1% and was significantly increased up to 84.5% during after period (P value <0.001). Also, the fear and stigma caused by seeing a foreign tourist was significantly higher in after period compared to the before period (P value <0.001) (Table 1).

Other results of this study showed that in the before period the fear was higher in women than in men (P value: 0.019), but this significance did not continue in the after period (P value: 0.57). Also, the feeling of fear and stigma caused by seeing a foreign tourist was not related to education in the before period but it was higher in people with diploma certificate education in the after period (P value: 0.013) (Table 2).

Table 1: “Fear of Corona virus spreading and “Feeling of seeing foreign tourists” before and after the start the epidemic of COVID-19 Iran

	Before	After	P-value
Fear of corona virus			
Yes	83(40.1)	147(84.5)	<0.001
No	124(59.9)	27(15.5)	
Feeling of seeing foreign tourists			<0.001
Fear		99 (56.9)	
Stigma	<0.001	33 (19)	
No sense		42(24.1)	

Table 2: “Fear of Corona virus spreading and “Feeling of seeing foreign tourists” before and after start the epidemic of COVID-19 Iran by subgroups

Variables		Fear of Corona virus			Feeling of seeing foreign tourists			
		Yes	No	P-value	Fear	Stigma	No sense	P-value
Before								
Gender (n%)	Male	42(33.6)	83(66.4)	0.019	42(33.6)	18(14.4)	65(52)	0.49
	Female	41(50)	41(50)		26(31.7)	17(20.7)	39(47.6)	
After								
Age group (n%)	15-35	47(43.5)	61(56.5)	0.47	42(38.9)	23(21.3)	43(39.8)	0.016
	36-59	26(34.7)	49(65.3)		22(29.3)	10(13.3)	43(57.3)	
	60≤	10(41.7)	14(58.3)		4(16.7)	2(8.3)	18(75)	
Education (n%)	15-35	47(43.5)	61(56.5)	0.47	42(38.9)	23(21.3)	43(39.8)	0.016
	36-59	26(34.7)	49(65.3)		22(29.3)	10(13.3)	43(57.3)	
	60≤	10(41.7)	14(58.3)		4(16.7)	2(8.3)	18(75)	
After								
Gender (n%)	Male	84(83.2)	17(16.8)	0.57	58(57.4)	20(19.8)	23(22.8)	0.86
	Female	63(86.3)	10(13.7)		41(56.2)	13(17.8)	19(26)	
Age group (n%)	15-35	63(84)	12(16)	0.97	40(53.3)	16(21.3)	19(25.3)	0.17
	36-59	74(85.1)	13(14.9)		55(63.2)	15(17.2)	17(19.5)	
	60≤	10(83.3)	2(16.7)		4(33.3)	2(16.7)	6(50)	
Education (n%)	Under diploma	25(80.6)	6(19.4)	0.8	12(38.7)	4(12.9)	15(48.4)	0.013
	Diploma	63(85.1)	11(14.9)		46(62.2)	16(21.6)	12(16.2)	
	Higher education	59(85.5)	10(14.5)		41(59.4)	13(18.8)	15(21.7)	

DISCUSSION

This study was conducted while very few people believed that one day the disease would cross the China's borders and cause thousands of casualties not only in Iran but all over the world.In this study, the fear of COVID-19 and the feeling created after seeing a foreign tourist in Yazd city were examined.

The results of this study demonstrated that fear of COVID-19among people had been doubled in the after period. Meanwhile the fear due to seeing foreign tourists had been higher in after period than in before period.

Humans often experience fear in new and unfamiliar situations and encounters. This is also important in the field of health and in the face of emerging diseases. For example, in 2014, when there were several cases of Ebola in the United States, the word "Fearbola" meant fear of

Ebola was created[12]. Jiloha's study on the effect of COVID-19 on mental health found that fear, anxiety, worry, depression, aggression, and stigma, especially for the elderly and children, were among the most important health consequences of the disease[13]. In a study by Bobbie Person et al., Fear and stigma were discussed as two important consequences of the prevalence of SARS[14].

The onset of the epidemic can significantly cause fear in most people, and this fear and anxiety can be reinforced by pre-existing anxiety and depressive disorders[15]. According to Stacy Lu, this condition does not occur for diseases such as influenza, which have been endemic for many years and have vaccine and acceptable treatment, unless an unknown mutant species spreads[12].

As mentioned before, one of the causes of fear is the absence of previous exposure to the disease as well as the lack of an effective vaccine and acceptable treatment. But there are other reasons for fear outside of health sector. With the advent of new technologies, as well as the development of the internet and the expansion of social networks, news and information are easily circulating among the people, which can be both useful and harmful. The information bombardment, the pervasiveness of rumors and the fake news published by these tools help to increase the fear. A study by Oyeyemi et al on the Twitter search engine found that at the time of Ebola outbreak, more than half of the published tweets contained incorrect information about the disease. However, this information was read more and the percentage of retweets was higher[16].

A person cannot make good decisions during times of extreme fear and anxiety, and he or she may do something wrong, and his or her mental health may be threatened because of this. Studies have shown that fear of COVID-19 causes other fears such as fear of crowded places, fear of disturbing by others, fear of travel, and fear of moving by public transportation. But this coin has another face. A number of studies have shown that fear of disease can be an effective tool in changing behavior[17,18]. Evidence of this claim is the findings of the Selane study in which it is mentioned that the spread of AIDS has caused a social reaction of fear of AIDS and understanding this reaction can provide a good opportunity for health professionals to design targeted and preventive programs[19].

Fear in before period was higher in women than men and in 15-35-year than in other age groups but in after period there was no significant difference between age and sex groups and a high percentage of all groups were afraid of COVID-19.

Studies show that women have higher perceived risk than men. On the other hand, women pay more attention to their health and seek health care more than men. As a result, women are more likely than men to fear health threats.

According to the literature, young people are more likely than others to use social media. The speed with which news is disseminated on these platforms on one hand and the high coverage of various dimensions of a topic on the other hand, makes the users of these platforms more sensitive than the others regarding the issues that have occurred in the world.

CONCLUSION

The results of this study demonstrated that fear of COVID-19 among people had been doubled after the official report of the first case of Iran. Meanwhile, the fear due to seeing foreign tourists had been higher in after start epidemic in IR than in before start epidemic. Therefore, it is recommended thateducational and prevention programs should be developed to control fear so that people's physical and mental health is not harmed. Of course, on the other hand, this fear at the beginning of the epidemic can help to implement appropriate control and prevention policies that health decision makers should pay attention to. It is also recommended that comprehensive information training programs be designed and implemented on social media with the aim of improving health literacy skills for optimal and harmless use of social media to control COVID19 disease. Also, a certain number of media outlets should be identified and supported by the health system as a basis for access to information, and other media outlets operating in the field of health should be monitored.

Conflict of interest statement: The authors declare that there is no conflict of interest.

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