

Letter to Editor: Preventive Approach and Preparation for Crisis Management Before the Outbreak



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Dear Editor

Epidemic crises lead to the quarantine and closure of many commercial and social activities, which can cause a lot of damage to communities. The recent coronavirus crisis, which has spread from China had many consequences due to its unknown nature and rapid spread. The epidemic is so severe that it was issued as a global warning by the World Health Organization. This epidemic has placed a heavy burden on China's healthcare system due to a lack of equipment, resources, predictive models, and medicine [1, 2].

Inadequate risk assessments of the urgency of the situation and limited reports of the virus in China have, to some extent, led to the rapid spread and prevalence of COVID-19 in mainland China and then near and far countries [3].

Because of the emergence of this virus, the best measure could be prevention, diagnosis, and timely treatment [4]. If you are prepared to deal with this virus, its consequences will be reduced.

Considering the high prevalence of this virus all over the world and due to the trade relations between Iran and China, the probability of this virus reaching Iran was very high. Therefore, it was expected that we prevent it

and get prepared before the epidemic and becoming an internal crisis.

One way to succeed in crisis management is to learn from the experiences of other countries, including their actions and achievements in this issue in countries, such as China, measures such as quarantine and closing all educational centers and gathering places to reduce the host of the virus. Given that the main causes of viral diseases affecting the human respiratory system are viruses with similar functions and sometimes from the same family that has similar ways of transmission and prevention, it should be easy to prepare for these biological events.

The rapid transmission of the coronavirus prevents in-person services; in contrast, providing online services is safe. Thus, the use of 5G Internet-based online services was one of China's successful experiences in controlling the psychological burden of coronavirus outbreaks, and they provided online mental health services. China's effective and thought-provoking measures included educating and raising public awareness through the rapid publication of several books on COVID-19 prevention, control and mental health education, and the provision of free electronic copies to the general public. Also, several artificial intelligence programs have been used as interventions in psychological crises during epidemics [5].

Experience has shown that in the event of any disease or crisis, some items are needed more, so principled

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management and preparation by providing the necessary equipment and planning for equitable distribution in each crisis will prevent surprises in any crisis [6, 7].

Strategies to improve the level of readiness in the country are as follow:

1. Announcing the readiness of the industries producing detergents and disinfectants and monitoring the quality of production;
2. Storing and supplying food according to the needs of the country for the next few months;
3. Planning for proper and fair distribution of protective equipment in case of crisis;
4. Announcing the instructions for identifying, testing, hospitalizing, and treating the suspects;
5. Announcing the correct way of disposing of contaminated waste resulting from the treatment process of suspicious or sick people;
6. Providing education and information through legal and trusted centers;
7. Developing an operational plan for coronavirus medical and infectious waste management;
8. Managing the beds of the hospital intensive care units;
9. Production and supply of equipment required for protection and disinfection;
10. Making diagnostic kits according to current knowledge;
11. Quarantining the places with the first signs of the disease;
12. Following up people with symptoms of the disease and, if necessary, treating and quarantining these people;
13. Identifying the gathering centers of the people and ordering the evacuation and closure until further notice and their disinfection;
14. To prevent epidemics in different groups of employees:
 - a. Teaching workers and employers the principles of disinfection;

b. Providing sufficient disinfectants and detergents among the employees of each complex;

c. After the appearance of the first signs of the disease in people, closing the gathering centers of people, including banks, schools and universities, and non-vital industries, tourism centers, and so on;

d. Disinfection of all public centers and means of public transportation;

e. Enforcement of curfews at the entrances of infected cities;

f. Implementation of screening plan in all industries and factories.

Ethical Considerations

Compliance with ethical guidelines

All ethical principles are considered in this article.

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Authors' contributions

All authors contributed in preparing this article.

Conflict of interest

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References

- [1] Arefi MF, Poursadeqiyan M. A review of studies on the epidemic crisis of COVID-19 disease with a preventive approach. *Work*. 2020; (Preprint):1-3. [DOI: [10.3233/WOR-203218](https://doi.org/10.3233/WOR-203218)]
- [2] Poursadeqiyan M, Bazrafshan E, Arefi MF. Review of environmental challenges and pandemic crisis of Covid-19. *J Edu Health Promot* 2020; 9:250. [PMCID] [PMID]
- [3] Peeri NC, Shrestha N, Rahman MS, Zaki R, Tan Z, Bibi S, et al. The SARS, MERS and novel coronavirus (COVID-19)

- epidemics, the newest and biggest global health threats: What lessons have we learned? *Int J Epidemiol.* 2020; 49(3):717-26. [DOI:10.1093/ije/dyaa033] [PMID] [PMCID]
- [4] Xu K, Cai H, Shen Y, Ni Q, Chen Y, Hu S, et al. [Management of corona virus disease-19 (COVID-19): The Zhejiang experience (Chinese)]. *Zhejiang Da Xue Xue Bao Yi Xue Ban.* 2020; 49(1):147-57. [DOI:10.3785/j.issn.1008-9292.2020.02.02] [PMID]
- [5] Liu S, Yang L, Zhang C, Xiang Y-T, Liu Z, Hu S, et al. On-line mental health services in China during the COVID-19 outbreak. *Lancet Psychiatry.* 2020; 7(4):e17-8. [DOI:10.1016/S2215-0366(20)30077-8] [PMID] [PMCID]
- [6] Banerjee A, Rawat R, Subudhi S. Outbreak control policies for middle east respiratory syndrome (MERS): The present and the future. *J Trop Dis.* 2015; 3(3):1-4. [DOI:10.4172/2329-891X.1000166]
- [7] Feiz Arefi M, Babaei-Pouya A, Poursadeqiyam M. The health effects of quarantine during the COVID-19 pandemic. *Work.* 2020 ; 67(3): 523-527. [DOI: 10.3233/WOR-203306]

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