



Self-Care Instructions for People Not Requiring Hospitalization for Coronavirus Disease 2019 (COVID-19)

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Abstract

Context: Recently, the rapid spread of coronavirus disease 2019 (COVID-19) has become a health challenge worldwide. Dealing with outbreaks of highly pathogenic COVID-19 in the first stage requires preventive actions and self-care behaviors from individuals themselves. The purpose of this study was to determine self-care instructions for people not requiring hospitalization for COVID-19 disease.

Methods: This study was a narrative review to identify self-care instructions for people not requiring hospitalization for COVID-19. A regular search was conducted in PubMed, Science Direct, Scopus, and Google Scholar. In this regard, related studies and guidelines in the English language were reviewed. The keywords used were: self-care, coronavirus, COVID-19, and Instructions.

Results: Based on the findings, self-care instructions for people with COVID-19 that not requiring hospitalization were identified in 10 main categories. According to WHO guidelines, patients and household members should be educated about personal hygiene, and how to care for the member of the family suspected of having COVID-19 disease as safely as possible to prevent the infection from spreading to household contacts.

Conclusions: Since there is no definitive treatment and the unknown behavior of COVID-19, self-care behaviors have been the best possible strategy to control the virus.

Keywords: Self-Care, Coronavirus Disease 2019, Guidance, WHO, COVID-19

1. Context

In December 2019, symptoms of unknown source pneumonia were reported to the China's National Health Commission in Wuhan, China (1-4). Seven days later, a new virus -known as coronavirus disease 2019 (COVID-19)- was identified and now is recognized as a health challenge worldwide (5). Eighty-one days after the first case (21 March 2020), COVID-19 reached 186 countries with 287,311 infected cases of which 11,893 deaths were reported (6).

Although coronaviruses are reported more in animals, seven types of them infected the respiratory system of the human. It is difficult to determine whether the cause of the disease is COVID-19 and requires laboratory kits for definitive diagnosis (7). World Health Organization (WHO) is seeking to identify, track and limit COVID-19 disease cases. People with co-morbidities such as diabetes, heart disease,

kidney disease, immune deficiency and autoimmune diseases are more at risk for COVID-19 (8).

The COVID-19 is still affecting many people around the world. This type of coronavirus is also spreading in Iran. Symptoms of COVID-19 are mild and treatable in 80% of infected people, but others may be more severe and even due to death (9). In general, people should follow self-care strategies until the risk of transmission is reduced. Current information on COVID-19 is low, therefore, self-care actions should be based on general recommendations for other chronic viruses such as the Middle East respiratory syndrome (MERS) and may last up to 14 days (9, 10).

According to the findings of the related studies, most patients were 30 to 79 years of age (87%) and COVID-19 mainly infected the elder people. Therefore, disease prevention and management using self-care instructions can be a useful solution to overcome COVID-19 disease (11).

Self-care is a practice in which everyone uses their knowledge, skills, and abilities as a resource to independently improve their health condition. Self-care process can also include consulting and getting specialized or non-specialist instructions from others. Moreover, appropriate self-care instructions can be as applicable approaches to decelerate the COVID-19 progression and improve the quality of life (12). According to the recent WHO recommendations and also due to the fast spread of the COVID-19, people should stay home and follow self-care guidelines (10, 13, 14). Therefore, the purpose of the present study was to determine self-care instructions for people not requiring hospitalization for COVID-19.

2. Methods

This study was a narrative review that performed in 2020. Owing to the new outbreak, all published articles and WHO and Center for Disease Control and Prevention (CDC) guidelines were reviewed to identify self-care instructions for people with COVID-19.

In the first phase of the present study, a regular search was conducted in PubMed, Science Direct, Scopus, and Google Scholar. In this manner, related studies and guidelines in the English language were reviewed. The keywords used were: self-care, coronavirus, COVID-19, World Health Organization, Center for Disease Control and Prevention (CDC), guidelines and instructions. Our inclusion criteria were: full-text papers with the keywords in the title or abstracts, studies published in December 2019 to March 2020, and studies published in English. We included all of resources such as reports, editorial letters, guidelines, and instructions. We excluded studies that addressed the corona outbreak report, which is not applicable to the field of COVID-19 self-care instructions.

In the next phase, all identified documents were reviewed and those that met the inclusion criteria were selected for complete review. At this stage, the total number of articles obtained was 158 articles, after eliminating duplicate articles, title and abstract of 115 articles were reviewed and finally, 12 articles were selected for full-text review. The steps for selecting the articles are illustrated in Figure 1.

3. Results

Owing to the novelty of the subject, there were not many articles on self-care for COVID-19. Therefore, in addition to the existing articles, the researchers also included the WHO and the CDC reports and instructions. Using applied search strategies, 18 articles, reports, and guidelines

were found in full-text that after reviewing the title and abstract, 6 papers did not meet the inclusion criteria. Thus, 12 full-text documents were reviewed (Table 1).

According to the findings of this study, self-care instructions for people not requiring hospitalization for COVID-19 were identified in 15 main categories. These guidelines are shown in Table 2 along with related articles.

As shown in Table 2, the instructions “stay home” (n = 7), “observe standard distance (1.5 meters) with others” (n = 6), “regular hand washing” (n = 5), “respiratory hygiene” (n = 5), “fever and respiratory symptoms monitoring” (n = 5), “keep up-to-date on the latest information on the disease” (n = 5), and “contact with healthcare centers” (n = 5) were the most prevalent among other self-care guidelines for people with COVID-19.

In addition, a review of articles and reports showed that the WHO and the CDC provided the most guidelines and recommendations regarding self-care for those who do not need hospitalization (n = 14 and n = 9, respectively). According to WHO guidelines, patients and household members should be educated about personal hygiene and how to care for the member of the family suspected of having COVID-19 disease as safely as possible to prevent the infection from spreading to household contacts. The patient and the family should be provided with ongoing support and education, and monitoring should continue for the duration of home care. Furthermore, CDC published recommendations for people with confirmed or suspected COVID-19 (including persons under investigation) who do not need to be hospitalized and people with confirmed COVID-19 who were hospitalized and determined to be medically stable to go home.

The findings of the present study showed that common symptoms of COVID-19, susceptible individuals, as well as ways of virus transmission, are important factors that can be helpful in self-care activities. This information is listed in Box 1.

4. Discussion

At the time of the outbreak of an epidemic, methods of prevention and protection against disease are one of the most important principles of disease control. Nowadays, owing to the new lifestyle and fast transportation that can transmit disease from one city to another or one country to another, countries controlling the epidemic in 21 century will face new challenges (3). Meanwhile, using disease prevention and management techniques, improving lifestyle, educating health tips, and providing self-care guidelines can prevent further outbreaks. In this study, we studied self-care instructions for people not requiring hospitalization for COVID-19.



Figure 1. Flow diagram of the selection process

The findings of this study showed that the use of self-care instructions such as awareness of the latest disease news, washing hands regularly, stay home except for getting medical care, wear a facemask, cover coughs and sneezes, and check fever and respiratory symptoms can help reduce the risk of transmission of COVID-19. Control and management of an epidemic disease at the international level require people's cooperation (16). Learning how to deal with the symptoms of COVID-19 disease is one

of the basic principles of managing this disease. Infected people with mild symptoms of disease regardless of etiological factors do not necessarily need to be hospitalized. These people should stay home when symptoms are mild and if symptoms worsen should seek medical care (18).

According to the findings of this paper, if people are mildly infected with COVID-19, they should be quarantined at home during their illness and use a separate room for rest. According to the WHO and CDC self-care guidelines,

Table 1. Articles and Reports Reviewed to Identify COVID-19 Self-Care Instructions

ID	First Author (Reference)	Year of Publication	Type of Article	Main Purpose
1	Arabi et al. (15)	2020	Report	Critical care report for coronavirus
2	Patel et al. (16)	2020	Report	Primary public health response and interim clinical guidance for coronavirus outbreak 2019
3	Huh et al. (17)	2020	Review	Essential strategies for the next phase of COVID-19
4	Jiang et al. (18)	2020	Review	A review of the clinical features of COVID-19
5	Lai et al. (19)	2020	Report	Challenges of severe acute respiratory syndrome caused by coronavirus 2 and COVID-19
6	Stebbing et al. (20)	2020	Report	The combination of anti-viral and anti-inflammatory treatments of COVID-19
7	Vaezi A (2)	2020	Editorial	Infodemic and risk communication in the era of COVID-19
8	Guan et al. (21)	2020	Research	Clinical characteristics of coronavirus disease 2019 in China
9	WHO (22)	2020	Guideline	Operational considerations for managing cases with COVID-19
10	WHO (23)	2020	Guideline	Rational use of personal protective equipment for COVID-19
11	WHO (13)	2020	Guideline	Home care for patients with suspected novel coronavirus (COVID-19) infection presenting with mild symptoms, and management of their contacts
12	CDC (10)	2020	Report	Evaluation of people with COVID-19

Table 2. Self-Care Instructions for People with COVID-19

Self-Care Instructions	Article ID												Frequency	
	1	2	3	4	5	6	7	8	9	10	11	12	Yes	No
Stay home	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	7	5
Use a separate room	No	No	Yes	No	No	No	No	No	Yes	No	No	Yes	3	9
Room ventilation	No	No	No	No	No	No	No	No	No	No	Yes	No	1	11
Regular hand washing with soap and water	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes	Yes	5	7
Use handrub and alcohol for washing	No	No	No	No	No	No	No	No	No	Yes	No	No	1	11
Avoid animals	Yes	No	No	No	No	No	No	No	No	No	No	No	1	11
Observe standard distance (1.5 meters) with others	Yes	Yes	No	Yes	No	Yes	No	No	Yes	No	Yes	No	6	6
Respiratory hygiene	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No	Yes	5	7
fever and respiratory symptoms monitoring	No	Yes	No	Yes	Yes	No	No	No	No	Yes	No	Yes	5	7
Keep up-to-date on the latest information on the disease	Yes	No	Yes	No	No	Yes	Yes	Yes	No	No	No	No	5	7
Wear a facemask	No	No	No	No	No	No	No	No	No	No	Yes	Yes	2	10
Clean all "high-touch" surfaces	No	No	No	No	No	No	No	No	No	No	No	Yes	1	11
Contact with healthcare centers	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes	5	7
Isolation of individual patient waste	No	No	No	No	No	No	No	No	No	No	Yes	No	1	11
Separate personal belongings	No	No	No	No	No	No	No	No	No	Yes	No	Yes	2	10

people with COVID-19 or suspected who do not need hospitalization and those who were determined to be medically stable to go home should adhere to the principles of self-care and avoid attending public places (14). Currently, most treatments of COVID-19 are symptomatic and supportive; however, anti-inflammatory, antiviral, antimicrobial, and anti-malarial treatments are also used (19). In this situation that no specific antiviral medicines approved, self-care behaviors may be the best solution to control the COVID-19 disease (24). Based on available data about this

disease and the ways of the virus transmission, the WHO recommends that all patients with suspected COVID-19 infection do not need to be hospitalized unless severe symptoms such as infection and acute severe respiratory problems are present (13, 22, 23).

According to the findings of this paper, keeping up-to-date with the latest disease news, such as the symptoms, how the virus is transmitted, and those at risk of infection can help carry out the self-care guidelines better. The healthcare providers, while emphasizing the self-care of

Box 1. Essential Information on COVID-19

Clinical Information
Symptoms
Fever
Cough
Shortness of breath
Severe
Lung infection (pneumonia)
Acute respiratory syndrome
Kidney failure
Myocarditis
Susceptible people
The elderly
People with underlying diseases such as diabetes, HIV infection, autoimmune diseases and heart disease
Pregnant women
Children
Transmission ways
Cough and sneezing discharge
Close contact with an infected person
Touch the surfaces contaminated with the virus

chronic conditions by patients, state that the best practice in this manner is to provide necessary information to manage their own conditions as much as possible (25, 26). People should be aware of the latest developments about COVID-19 and follow pieces of advice given by healthcare providers, national and local public health authorities or employers on how to protect themselves and others from COVID-19. National and local authorities have the most up-to-date information about COVID-19 on whether this disease is spreading in the area. They are best placed to advise on what people in your area should be done to protect themselves (27).

According to the findings, keeping up-to-date on the latest information and measures on COVID-19 are important procedures that can contribute to the implementation of self-care instructions. Access to essential information and awareness of the latest disease statistics can help to make sensitivity about infection. In chronic conditions that require community involvement to control them, providing information to population has a key role to play in managing critical situations (28). In other words, timely delivery of accurate information in critical situations will be a pioneer in the implementation of international guidelines (29).

The findings of the present study showed that monitor-

ing and checking of common symptoms of COVID-19 is one of the important self-care recommendations of this disease. According to the WHO, symptoms of the disease must be monitored and new information has to be reported about the risk assessment, public health measures, and infection prevention and control (30). One of the important and tangible aspects of self-care is recognizing the disease and its common symptoms that can lead people to better treatment. Given the high latency period of the coronavirus -which lasts about 14 days and people can be carriers of the virus during this period- infected people only become aware of their illness when symptoms appear. On the other hand, the symptoms of the disease are somewhat similar to the common cold or influenza; consequently, it is important to know the symptoms for early diagnosis of disease (31). In addition, considering the importance of timely diagnosis in infectious and epidemic diseases, monitoring of symptoms can help early detection and screening of the disease and provide essential information and services to those infected (1).

In this study, we reviewed the latest international articles, reports, and instructions for self-care of people suspected or infected with COVID-19 who do not need hospitalization. Owing to the lack of definitive treatment for this disease and the unknown behaviors of this virus, self-care behaviors at home are the best possible solution for outbreak control. One of the challenges of this study was the lack of sufficient information about COVID-19 due to the new occurrence. Therefore, it is suggested that future studies should be conducted in laboratory studies to identify COVID-19 behaviors and definitive therapeutic approaches for the disease.

Footnotes

Authors' Contribution: Study concept and design: Esmaeil Mehraeen and Seyed Ahmad Seyed Alinaghi. Analysis and interpretation of data: Solmaz Saeidi and Mohammad Heydari. Drafting of the manuscript: Seyed Ahmad Seyed Alinaghi. Critical revision of the manuscript for important intellectual content: Esmaeil Mehraeen and Solmaz Saeidi.

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