

A Systematic Review On The Assessment Of Infection In The Elderly With Covid-19 And Fractures In ICU Based On Analgesia Point

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Abstract

This study has examined the principles of care of the medical staff for the elderly with fracture problems and corona virus in the special care unit. While the Chinese health authorities had previously reported the average age of the disease to be 75 years. Elderly people, especially people with lung problems, have a mortality rate of about 15%. The coronavirus acts like a seasonal flu. According to the US Centers for Disease Control and Prevention (CDC), between 70 and 85 percent of all flu-related deaths and 50 to 70 percent of flu-related hospitalizations are among people over the age of 65. The most at-risk group is the elderly who live in day care centers. Among recovered patients with coronavirus in China, there is evidence that some of these patients have long-term lung damage. The researchers announced that among the 70 recovered patients, lung damage was observed in 66 of them in the CT scan. These injuries are caused by a build-up of hardened tissue that blocks blood vessels in tiny air sacs called alveoli, said Yuhei Wang, a radiologist at Huazhong University of Science and Technology in Wuhan, China. Alveoli absorb oxygen to form tissue debris around them. Tissue lesions can be a chronic symptom of lung diseases, including SARS and MERS, similar injuries were observed in recovered patients.

Keywords: Pulmonary Problems, Elderly, Fracture Problems, Disease.

Introduction

The elderly is the first group to be quarantined due to their physical conditions and greater vulnerability to corona disease [1-3]. Social isolation among older adults is a serious public health concern, as they face an increased risk of cardiovascular, autoimmune, neurocognitive, and mental health problems [4]. In a qualitative study, Richard Armitage and Laura Neloms showed that in the conditions of the corona crisis, the presence of the elderly in quarantine has become a serious concern in the field of public health, and they should stay at home to maintain their health and reduce transmission [5]. However, adherence to isolation strategies is likely to decrease over time, but its side effects, which

are a variety of mood disorders, especially in disadvantaged and weak populations, cannot be ignored, and necessary care should be taken to improve their condition [6].

Prolonged social distancing during the pandemic with reduced contact with loved ones can cause the elderly to experience unnecessary stress, loss of relationships, and uncertainty about the future [7]. The results of Ferreira et al.'s research show that people quarantined at home report higher anxiety and lower quality of life, and people who have more anxiety tend to have a lower quality of life [8-10].

Women and elderly people experienced the highest level of anxiety and low quality of life. The findings of the research of Asgari et al. showed that the experiences of corona patients in the three main themes of negative thoughts, feelings and emotions caused by the disease (after Individual relations), changing the behavior of family members (family relations dimension) and changing the behavior of others (social relations dimension) are classified [11].

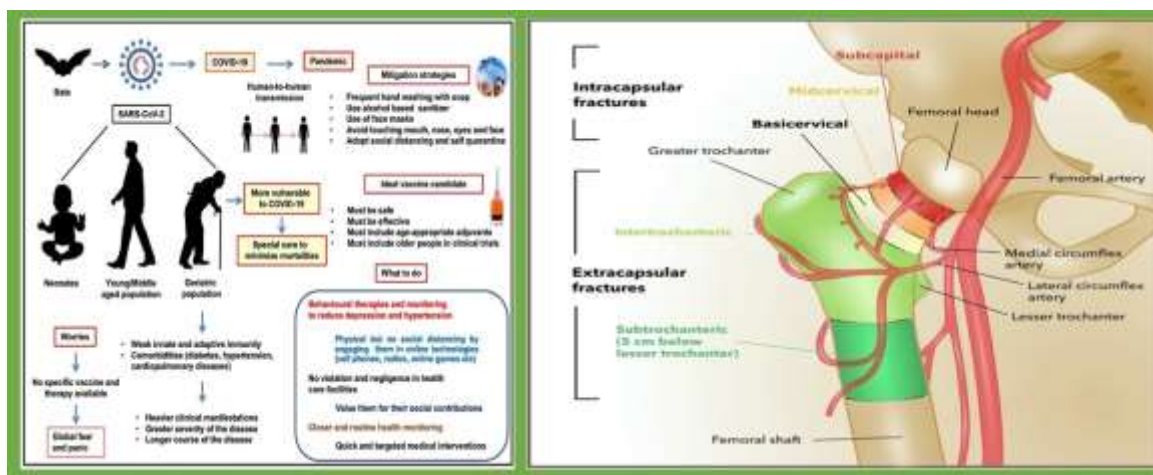
The results of this research showed that the spread of the corona disease strongly affects the personal, family and social relationships of people. And in order to prevent and control the damage caused by it, the cohesion and strength of the family structure should be put on the agenda through relevant training and effective psychological interventions [12-14].

In Khodabakhshi's research on students during the quarantine caused by corona, the main experiences of these people in four main themes including "the growth of negative emotions, confusion and pessimism", "the growth of practical intellectual obsessions around the body and washing", "intellectual concerns about "danger of family health" and "economic concerns and fear of getting rid of corona tomorrow" were obtained [15]. Death anxiety, the experience of the stigma of the disease, the experience of ambiguity, positive emotional experiences, the emotions experienced in relation to family members and the emotions caused by quarantine were the main themes that were obtained from the research of Rahmatinejad et al. as a result of interviews with corona patients.

In their meta-analytic study, Brooks et al reviewed 24 articles on the effects of quarantine on medical workers and community members during infectious diseases in different communities. They concluded that the studies reviewed emphasized the negative psychological effects of quarantine, including post-traumatic stress disorder (PTSD) symptoms such as confusion and anger [16]. In addition, psychological stressors such as worry about prolonged quarantine, uncertainty about the future, fear of illness (Figure 1), boredom, insufficient facilities, misinformation, mistakes, insufficient income, and financial and economic losses can be consequences of long-term quarantine.

In research aimed at the phenomenology of the lived experiences of the elderly from the corona pandemic, Chi showed that Covid-19 has brought unprecedented challenges and disproportionate threats to the lives, relationships and well-being of the elderly. However, the main message of this study was that older people believe that "this too shall pass" and regain the freedom that was lost during the pandemic [17].

Figure 1. Bony and vascular anatomy of the proximal femur in elderly people



Brooke and Clarke identified three themes of early social quarantine experiences of older adults, which included protective measures, current and future plans, and acceptance of a good life [18-20]. As stated, epidemics can create different behavioral social changes that are caused by the way people experience them. Old age is a sensitive period of human life, and paying attention to the issues and understanding the needs of this stage is an important social necessity.

Considering that few studies have been conducted on the psychological effects of home quarantine and Covid-19 in Iran, it is necessary to investigate the psychological effects of home quarantine as an emerging and very strange and new phenomenon in the contemporary history of Iran [21]. Elo and Kings believe that content analysis is an important method for providing evidence for phenomena where a qualitative approach is the only way to do the job. When using content analysis, the goal is to build a model to describe the phenomenon conceptually.

In order to achieve a deep understanding of this age group about the existing conditions and how they view the Covid-19 pandemic, quantitative and theoretical research will create limitations for a deep understanding of the concerns and other issues facing the elderly. Knowing the structure of the mental views of the elderly in the practice of a specific lifestyle with the help of qualitative studies will give health workers the opportunity to, in addition to the possibility of evaluating the lifestyle accurately and based on its main nature, design appropriate preventive approaches and enhance the capabilities of the elderly [22] improve and finally modify the lifestyle of the elderly to an acceptable level. Therefore, the present study was conducted with the aim of qualitative analysis of the elderly's experience of quarantine and daily life during the corona pandemic.

Search strategy and selection of articles

Search in Scopus, Google scholar, PubMed databases and by searching with keywords such as "Principles of Treatment Staff Care of Elderly Patients" and "Covid-19" and "Fracture Problems" and "Special Care Unit" to obtain articles related to the selected keywords [7]. Case report articles, editorials, and articles that were not published or only an introduction of them were available, as well as summaries of congresses and meetings that were in languages other than English, were ignored. Only the original research articles that evaluated the effectiveness of different drugs in the treatment of COVID-19 using standard methods were studied (figure 2).

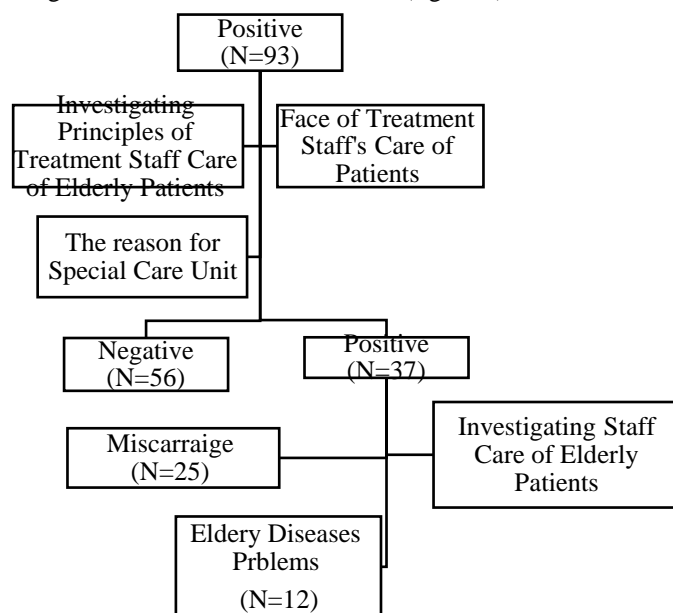


Figure 2. Flow chart of included subjects

What are the causes of hip bone fracture in the elderly and what are the care methods for an elderly person with a fracture?

A hip fracture is a fracture in the end of your femur. A fracture occurs where the femur meets the hip bone (Figure 3). Hip fractures in the elderly are a serious injury. It occurs mostly in women after menopause. Fractures of the hip bone in the elderly are usually caused by falling. If you have osteoporosis, you are more likely to break the hip joint. Osteoporosis is the thinning and weakening of bones that can happen with age. Weak bones break more easily [23]. Other diseases, such as cancer and kidney disease, may also weaken bones and make them easier to break.

Figure 3. Causes of hip bone fracture in the elderly



Symptoms of a hip fracture in the elderly may include: X-rays may show the fracture.

(If there is osteoporosis, it also shows it.) Sometimes, an MRI scan is necessary to see a fracture that is not present in the X-ray. Hip bone fracture in the elderly is one of the injuries that, while it is very common, it is difficult to manage. With increasing age, we see fractures of the hip bone in the elderly [24]. Most of the recorded cases were people over 85 years old. While the likelihood of hip fracture increases exponentially with age in both men and women, women are 3 times more likely to fracture than men.

Pelvic bone surgery

In addition to managing the acute phase of hip fractures in the elderly and helping patients and families decide on optimal treatment, there is much to do to enhance the likelihood of a rapid recovery and successful outcome [25]. For most patients, the surgical method is preferred. The main goals of treatment are hip stabilization, pain reduction and restoration of functional level and prevention. Surgery is the appropriate treatment method for hip fracture because it provides stable stabilization, full weight bearing and reduces the risk of complications. Surgery is also associated with shorter hospital stays and improved rehabilitation and recovery.

Lung problems in the elderly

Laboratory evidence on the omicron strain shows that the clinical symptoms of omicron are less severe than the delta strain. In these studies, it became clear that micron particles have a lower tendency to enter and multiply in the lower cells of the lungs. Therefore, due to the less contamination of the air alveoli (air exchange bags in the lung that were severely inflamed in the previous strains) in omicron 's disease, the pulmonary symptoms are mild or not seen [26]. Other symptoms that appear and are sometimes especially severe in children are related to contamination of the upper parts of the respiratory system, such as the trachea, pharynx, and nasal passages. Omicron virus particles have a high tendency to infect the upper parts of the lung and respiratory tract.

Therefore, the inflammation that occurs in this part of the respiratory system is usually not life-threatening and the blood oxygen level does not drop. Of course, people who have underlying diseases or whose immune system is at a

low level due to illness or drug use will show more severe symptoms [27]. People of all ages, including children, are susceptible to corona disease. But mostly middle-aged and elderly people are affected by this disease. The risk of developing dangerous symptoms increases with age. People 85 years and older have the highest probability of developing dangerous symptoms of the disease. In the United States, about 80% of deaths from this disease occur in people 65 years and older. If the elderly person has an important underlying disease, this probability increases.

It is usually difficult to identify and manage infections in the elderly. Factors that can cause poor health outcomes in the elderly include physiological changes of aging, chronic diseases such as cardiopulmonary diseases, diabetes, dementia, and simultaneous use of various drugs. Respiratory diseases usually have a U-shaped mortality curve, and deaths in children and the elderly are higher than in other ages, but this is not the case with Covid-19, and the death rate in the elderly increases, but children are less prone to death. This raises questions about the cellular and molecular mechanisms associated with the exacerbation of the disease of Covid-19 in the elderly [28].

Understanding such mechanisms may help us better manage disease in the elderly. The elderly is very vulnerable during the outbreak of the Covid-19 disease, and this causes the level of anxiety and stress caused by it to increase in the elderly. Mistreatment of the elderly is more common in societies where both the victim and the perpetrator of the misbehavior are limited in receiving support services and treating mental health problems [29]. The quarantine of the elderly has increased the demand for essential services, and the elderly have difficulty accessing these services.

Restrictions in accessing services and care have made the elderly less likely to report misbehavior and the occurrence of misbehavior seems normal to them. People with cognitive disorders and far from family are at greater risk [30]. At this time, with the increase of digital exchanges, the possibility of financial misbehavior of the elderly by strangers also increases. Limitation in communication with the elderly makes their caregivers unable to do their job well and put under more pressure.

Wang and colleagues believe that some damage to the lung will disappear over time, but in some patients, the lung abnormalities turn into layers of scar tissue known as pulmonary fibrosis. Scarring of the lungs causes the lung tissue to harden and make it difficult to get enough oxygen. People with pulmonary fibrosis usually experience shortness of breath and their ability to do physical activity decreases, some patients are more at risk of developing this type of scarring. The First Hospital of Lanzhou University (Xiaolong Qi) in China said about the patients with pulmonary fibrosis: These patients include the elderly who experience severe pain from Covid-19. According to this hospital, necessary studies about other diseases such as cancer or diabetes and other lung diseases caused by smoking are underway [31]. Lung diseases affect elderly people more than others, and if they get infected and are not treated, they become more severe and spread in their body. Elderly people are prone to lung infections due to weak immune system. People with respiratory or lung diseases suffer from malnutrition and malabsorption more than others due to a lot of coughing and sometimes nausea [32]. Therefore, pulmonary patients face weight loss. In the meantime, the elderly should pay more attention to lung problems than other age groups and prevent these types of diseases by choosing the right lifestyle.

The most common lung diseases

According to the causes and symptoms, lung diseases include other diseases, some of the most common ones are mentioned below, including flu, cold, pneumonia, asthma, cough, sinusitis.

Flu

By involving the respiratory tract, influenza spreads a viral infection through respiratory particles. Influenza virus can be spread through inhalation or direct contact with surfaces [33]. The establishment of this virus in the upper or lower respiratory tract damages the surface cell layers. Therefore, when the natural defense mechanism of the respiratory tract is compromised, bacteria easily enter the underlying respiratory tissues and stick to them (Figure 4). Elderly people with influenza can prevent the disease from becoming acute by using nursing services at home.

Figure 4. Flu



A cold

A cold is an infection that everyone has experienced at least once in their life. More than 200 different viruses have been created in minor nose and throat infections that lead to colds. 10 to 40% of common cold infection is rhinovirus [34]. Other common cold viruses are coronavirus and respiratory syncytial virus (RSV). The duration of a cold lasts about a week and sometimes longer in some colds. In people such as children, the elderly, those who have a poor physical and health condition, the period of cold will be prolonged.

Pneumonia

Pneumonia is one of the common lung diseases, an infection caused by bacteria, viruses or fungi. Coughing, sneezing, and breathing are often the causes of spreading pneumonia, but some people who do not have signs and symptoms of the disease can be carriers of pneumonia [34]. After diagnosing pneumonia, doctors start treating this disease with antibiotics due to the uncertainty of whether the cause is bacterial or viral.

The most common categories of pneumonia

Doctors prescribe antibiotics according to the classes of pneumonia:

- Community acquired pneumonia (CAP);
- Healthcare-associated pneumonia (HCAP);
- Aspiration pneumonia.

Community-acquired pneumonia (CAP) occurs when a person with this disease has not recently been in a hospital or sanitarium, the most common cause of which is streptococcus pneumonia.

Asthma

Asthma is a common disease of the respiratory tracts and lungs, and asthma is the inflammation of the respiratory tracts and the narrowing of these airways is actually accompanied by the contraction of bronchial smooth muscles (bronchospasm). This dangerous disease will not cause any problem if it is controlled properly.

Cough

Cough is an automatic response to irritants in the respiratory tract. In fact, coughing is a factor for emptying the lungs and pharynx of any dust, germs, mucus and phlegm. Abnormal coughs with symptoms such as shortness of breath and bloody sputum indicate a medical problem. Bacteria cause sinusitis infection. Bacteria in the nose cause sinusitis. As long as the connection between the sinus and the nose is open and there is a possibility of drainage, these bacteria are not harmful [35]. However, with the blockage of the drainage channels of the sinuses and the proliferation of existing bacteria, infection occurs and this is the main cause of sinusitis.

Discussion

Corona in the elderly is one of the concerns that we hear a lot recently. These days, we hear a lot that the Covid-19 viruses are very dangerous for the elderly and people with underlying diseases. Therefore, some questions may arise for us, why do the elderly get infected with corona more? And why is this disease more dangerous in the elderly? Old age is accompanied by a decrease in mental and physical abilities that occurs due to the passage of time [36]. The definition of aging in different countries is different according to cultural conditions.

In Iran, the age of old age is not defined, but if we consider the beginning of old age as the time of full retirement from service, according to the social security law, the old age for men is 60 years old and for women 55 years old, and according to the country's employment law, the retirement age for men and women is 65 years old [37]. In humans, aging shows the accumulation of changes in a human over time, which includes physical, psychological and social changes. For example, reaction time may decrease with age while knowledge of world events and wisdom may increase. Aging is among the greatest known risk factors for most human diseases. Of the approximately 150,000 deaths that occur every year in the world, two-thirds of them are due to age-related causes. Corona in the elderly is one of the problems we are dealing with today.

Figure 5. Forest plot showed Principles of Treatment Staff Care of Elderly Patients



Figure 6. Forest plot showed Covid-19 for elderly people

Is corona more prevalent in the elderly?

It is wrong to say that "coronavirus is more prevalent in the elderly" or "the elderly are more likely to be infected with the corona virus". Corona virus may affect the elderly as well as others. The elderly is not more exposed to the spread of the corona virus than others. In fact, in elderly people, the risk of severe infection is higher, and for this reason, it is very important to follow the health tips more carefully [38]. Elderly people who have serious underlying diseases are more at risk of severe symptoms of corona infection than other elderly people, and it is worth considering that some underlying diseases may increase the risks and complications caused by corona disease. These diseases are mentioned below:

- Cardiopulmonary diseases (including moderate to severe form of asthma);
- Diabetes;
- People whose immune system is weakened for any reason, such as:
- People with cancer who are being treated;
- Those who take immunosuppressive drugs such as Corton (corticosteroid) for a long time;
- Smoking and smoking;
- Organ transplant recipients, such as kidney transplant recipients;
- Excessive obesity;
- Kidney patients undergoing dialysis;
- People with liver disease.

How to prevent corona and lung problems in the elderly?

It is not clear what factors affect the corona in the elderly, but it is clear that health habits and behaviors, social support system and optimistic view of life, life experiences, personality characteristics and current physical health and ... all are effective on the health of old age [39]. All human beings are born with extraordinary tissue and cell reserves, but this reserve declines with age. Some types of cells, such as liver and kidney cells, are regularly replaced over a long period of time, others, such as muscle cells, have a limited ability to reproduce, the lifespan of all cells and tissues is limited, and the older a person gets, the poorer the repair process. In this way, the body ages very slowly without its changes being noticeable for years. Of course, what is certain is that it is possible to prevent corona in the elderly by following health principles and protocols [40].

Strengthening the immune system against corona in the elderly

In the crisis of the current situation, in order to prevent the infection and increase of corona in the elderly, the Ministry of Health takes into account recommendations. Of course, these recommendations should be followed by all people, which we mention below:

The elderly should consume small amounts of food but with high nutritional value.

During the outbreak of corona and due to the inactivity of the elderly, the most important nutritional advice for this age group is to consume simple and small foods; in such a way that all the needs of the person are met with nutrients [41].

Avoid eating foods with low nutritional value.

The basic point in the diet plan for the elderly is to consume low-fat and low-cholesterol foods such as milk and low-fat dairy products, reduce the consumption of oil, butter, cream, etc., and also consume low-salt and high-fiber foods based on the food pyramid [42]. Also, sugary and sweet substances, fatty and fried and salty foods that stimulate the immune system should also be reduced at this age. The elderly who suffers from chronic diseases such as diabetes, high blood pressure, high blood lipids, and cardiovascular diseases should continue to follow the diet given to them. Adequate consumption of protein food sources is also necessary to strengthen the immune system [43]. Therefore, the elderly should get the protein they need from food sources containing protein, such as lean meats, chicken, fish, egg whites, fat-free or low-fat dairy products (milk, yogurt, cheese).

Legumes are one of the plant sources of protein that, if consumed with grains, provide all the protein needs of the body. In general, daily consumption of at least 2 units of meat and eggs and one unit of legumes is necessary to provide the protein needed by the elderly [44]. With increasing age, the absorption of calcium and vitamin D in the body decreases, this has a detrimental effect on the health of bones in the elderly and increases the possibility of bone fractures. For this reason, regular consumption of calcium supplement or "Calcium-D" and monthly consumption of 50,000 units of vitamin D supplement according to the instructions of the Ministry of Health is necessary. In addition, it is recommended to consume at least 2 units of milk and dairy products, which are rich sources of calcium [45].

In some people who have digestive intolerance to milk, it is necessary to use milk substitutes such as yogurt and cheese daily. Vitamin B12 in the elderly, the body's ability to absorb vitamin 12 decreases. Iron is one of the other micronutrients that is recommended to strengthen against corona in the elderly. Elderly people who suffer from iron deficiency and anemia due to low intake of food sources of iron, have less resistance against infections, especially with the corona virus [46]. Food sources of iron, including red meat, chicken, and fish are rich sources of iron. Legumes and egg yolks, dark green vegetables such as parsley, beetroot leaves, dark lettuce leaves, dried fruits and nuts also help to supply the body with iron. Consumption of vegetables in order to prevent and deal with corona in the elderly is one of the other things that can be mentioned. Consuming vegetables can strengthen the immune system of people, of course, vegetables do not only mean eating vegetables, but salads and all kinds of cabbage, pumpkin, eggplant, turnips, radishes, celery and in general plant foods are considered among the vegetables group.

Consuming salads that contain several types of colorful plants such as green, yellow, red bell peppers, carrots, etc. is very useful in improving people's health [47]. Also, the elderly can consume a mixture of these vegetables along with fish, pan-roasted kebabs and low-fat cutlets, etc. to meet their body's need for nutrients. Another problem of corona in the elderly is diabetes. In addition to old age, diabetes is one of the conditions that decrease the immune system of a person. Diabetes in the elderly reduces the immune system more severely. This decrease makes the situation more difficult to prevent and deal with corona.

If you are elderly and have diabetes, it is recommended that you control your diabetes more and avoid a diet full of starch and sugar [48]. Experts believe that adequate sleep and rest are very important in the elderly against corona. Inadequate sleep and rest weaken the immune system and makes a person susceptible to illness. Finally, in these days, let's not forget that the elderly need the attention and care of those around them more than ever. The problem of corona in the elderly and the fear of it in many people cause immobility to stay at home. Mobility in the elderly is one of the most important points in health at this age. Mobility means doing personal work, walking around the house and breathing fresh air, because proper mobility has a very positive effect on strengthening muscles and people's spirits [49-51].

In order to deal with corona in the elderly, we must control stress. Stress is one of the factors that decrease the immune system of people [52]. For this purpose, know the cause of stress and consider a solution to deal with it. If the stress of the elderly is due to recent news and the statistics of corona infection and related issues, temporary interruption or limiting the news related to corona infection; continuous follow-up of news related to corona virus infection on social networks increases our concern and anxiety [53-55]. You can also do deep breathing, daily exercise, stretching and relaxation for this purpose. Having a healthy diet and consuming fresh fruits and vegetables, as well as getting enough sleep, avoiding smoking, planning and scheduling to do favorite and fun activities, sharing your feelings and concerns with people you trust in this regard [56-58].

One of the periodic needs that the elderly must perform routinely for diagnosis is diagnostic tests. Nikpour Aghadam et al in their study which was conducted on 2968 hospitalized patients diagnosed with Covid-19 showed that most of the disease cases were in the age group of 50 to 60 years and their findings indicate a higher risk of death due to Covid-19 among the elderly, especially the elderly it was related to underlying diseases [59]. Based on these statistics, the elderly may be considered one of the most vulnerable groups in the field of the Covid-19 pandemic, because the cases of early death in the outbreak of Covid-19 occurred primarily [60] in the elderly, which is probably due to a weak immune system that makes the viral infection progress more quickly [61].

Conclusion

By being aware of the special needs of the elderly during the Covid-19 disease and being sensitive to their vulnerability, we can help them in this difficult situation. During the outbreak of this disease, there is a need to disseminate new and correct information. Much of this information is published online, but older people may have limited access to these technologies. Therefore, it is very important that information is available to them through the media, newspapers and magazines. Many seniors may not be familiar with the complex medical terms and statistics of this disease, but it is their right to be informed of important information.

For this reason, information should be provided to them in simple and understandable language. Our duty, especially the statesmen and politicians, is to avoid spreading false information that causes fear and anxiety in them. Appropriate guidelines on Covid-19 and care of the elderly have been published by the World Health Organization, the US Centers for Disease Control and Prevention, etc., and these resources can be used to guide and care for the elderly. Isolation and quarantine of the elderly at home may aggravate their psychological problems. For this reason, they should always be supported psychologically and emotionally, and their relationship with family and relatives should be maintained, not necessarily physically, but with frequent voice and video calls. Regular video and voice calls with these people can keep hope and happiness alive in the elderly.

For the elderly who live alone, in this situation, access to food and medicine, etc., may be limited, so these people should be supported in meeting their daily needs. Also, special support and attention should be given to the elderly who have disabilities. For these people, maintaining social distance and using gloves and masks can be extremely limiting and reduce their ability to communicate. Using gloves is very disabling for the elderly who have vision problems and need touch to read, write and identify the environment. In order to meet the needs of these people, family, friends, relatives and health care workers must make home visits. Due to the vulnerability of the elderly to this disease, it is better for them not to leave the house as much as possible and not meet many people.

Health issues and prevention tips should be taught to them and important tips should be provided to them in simple language. This information should be repeated for them as much as necessary, and written and audio instructions should be provided to them. Unnecessary visits to medical centers should be avoided and unnecessary surgeries such as cataract, hernia, etc. should be postponed. Medical centers, doctors and psychiatrists, etc. should activate their telephone and digital visits and the necessary guidance and how to access these services should be provided to the elderly by family, relatives, friends and health care workers.

Family members should be sensitive to the symptoms of this disease in the elderly and the necessary tests should be performed if needed, but this should not increase self-isolation in them. Medical equipment is the best tool for screening symptoms in them. You should not use certain drugs for the prevention and treatment of Covid-19 in the elderly without a doctor's prescription, because the use of these drugs may be dangerous and fatal. For the elderly who live alone, centers that provide essential services such as food, medicine and other equipment are very important. The provision of these services should be increased as much as possible, and the contact numbers and necessary information about how to provide the services and the services that are provided should be provided to the elderly. Psychological issues are very important and families should be sensitive to them. It is normal for people to be stressed in these situations, but excessive fear, depression, sleep problems and suicidal thoughts require immediate attention and referral to a psychiatrist. Even in times of crisis, the elderly are the best people to participate in decision-making.

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