

The Impact on Elderly Mental Health During the Spread of Pandemic

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Abstract. The outbreak of COVID-19 is highly infectious and has spread rapidly around the world, which has had a great impact on people's physical and mental health. In addition to the physical impact, the epidemic may also have a different degree of psychological impact on different populations. In particular, some elderly people may have depression, anxiety, anxiety, nervousness, fear and other emotions, which may affect the prevention and treatment of COVID-19 and the standard of life of the elderly. From the psychological perspective of the elderly. With the development of society, the aging process is accelerating. This paper focuses on the importance of psychological intervention for the elderly during the epidemic, and increases the publicity of epidemic knowledge and health education for the elderly, so as to promote the elderly to form good epidemic prevention and control measures, and adopt various forms of communication and psychological counseling, so as to improve the psychological state of the elderly.

Keywords: COVID-19, Mental Health, Elderly.

1. Introduction

People all over the world had been treated by a pandemic over the last few years which called Coronavirus disease 19 also known as COVID-19. This disease caused by the virus SARS-CoV-2. It breaks out from Wuhan province in China, and had soon been classified as a pandemic. Up to now, more than 600 million people had been infected. More than 6 million of patients died. Symptoms include dry cough, fever, fatigue and so on. It can also cause acute respiratory stress syndrome (ARDS) and multi-organ failure which will lead to death. At the same time, this disease is more severe among elderly. Because the elderly are at high risk of neocoronar pneumonia because they mostly suffer from basic diseases and have low immunity, at the same time, the elderly's awareness of disease and prevention is generally weak. There are no clear division of different age group, but according to the source from Health and Retirement Study, 2016, more than half of Americans with age over 50 have either stroke, diabetes, heart and lung disease. This number increase to four out of five in the age group over 70. According to Chinese Centre for Disease Control and Prevention, the mortality rate is 3.6% in age group 60 to 69. Age above 80 years old, the rate reaches up to 18%.² As a result, in this article, the elderly is defined as people older than 60[1,2].

World health organization suggest that social isolation is a good way to control the spread of disease and decrease the number of deaths. However, it can also cause negative impact on the mental health of elderly. This article will talk about the cause that cause the elderly are at high risk during the pandemic and the influence on their mental health. Also, procedures and methods that can be implemented to prevent and reduce the influence of the pandemic are given in this article.

2. Clinical characteristics of the COVID-19

A single-stranded RNA virus in the betaCoV family, SARS-CoV-2. It shared 89% of its nucleotides with the bat SARS-like CoVZAC21 and 82% of its nucleotides with the human SARS-CoV. It was suspected that this virus was connected directly to Wuhan's Huanan Seafood Wholesale Market, making animal-to-human transmission the primary method. Investigating the subsequent cases revealed that person-to-person contact is the most typical method of COVID-19 transmission. The transmission of this respiratory infection is thought to take place by respiratory droplets from

coughing and sneezing. The incubation time of this virus could be generally between three to seven days and up to two weeks. 12.5 days is the longest time from infected to perform symptoms. Patients suffered from fever, malaise, dry cough and dyspnea. Computerized tomography (CT) scans of the chest revealed pneumonia in each case with aberrant results. Patients with a coronavirus may get lung failure and succumb to death. It will also cause complication such as chronic disease, lung disease and cancer. Hospital used ECOM to help maintain the vital sign.

3. The elderly people are at high risk during the pandemic

Aging results in a decrease in the strength of immune system. As age increase, the immune system undergoes a decline with impact on health. It means that older people have much higher risk in the infections of virus and bacteria. For example, during the season of influenza, about 90% of the death are patient with age over 65. Moreover, poor immune system can also lead to a decrease in the effectiveness in vaccines [3]. At the same time, anomaly immune system can exacerbate inflammation, which contribute to other illness that the elderly is easy to get. With the multiple comorbidities, elderly have more chance to get other illness such as congestive cardiac failure and sepsis, so they are more vulnerable when facing the virus. Also, older people may have cognitive and sensory deficits so they find it hard to comprehend and follow precautions.

China reported that the age is the factor that led to an increase in severe infections and mortality rate of COVID-19. Age groups 50 to 64, 65 to 79, and 80 years old above had around percentage of 19.8%, 43.2%, and 81.3% respectively of the sever infection which clearly show the relation between age and infections. The average death age in Korea is 75.7 years old. Cancer, diabetes, and other underlying conditions including high blood pressure account for 50% to 75% of fatality cases. They are categorized as a high-risk group because they are more susceptible to COVID-19. Moreover, other paper study the cases in Croatia also shown that comorbidities contribute the most in the death of COVID-19 among the elderly. According to the data from the first pandemic wave in Croatia of somatic comorbidities among coronavirus disease 2019 patient. They analysis the data of confirmed cases of COVID-19 from 2020 February to May. These patients were previously recorded with comorbidities with different kinds of diseases such as diabetes, cancer, circulatory diseases, chronic pulmonary, and kidney disease. A total of 2249 patients and 106 of them were dead and the average age of them is 82. Among these non-survivors, 70.8 percent of them had hypertension and 64.2 percent have diseases of the circulatory system, excluding hypertension. Patients with cardiomyopathy and diabetes have percentages of 30.2 and 25.5 respectively. However, for survivors, the average age is 50 and only 33.8 percentage of them have hypertension. 21.9 percent of the patients have diseases of the circulatory system, excluding hypertension. Only 10.2 percent for the patients with diabetes [4]. By comparing these two groups of data, the survivors in COVID-19 patients that have comorbidities was less common than the non-survivors. So, it also reflected that patient do not have other underlying diseases have more chance to survive through the pandemic, also as mention before, with the age growing, it is more easily for elderly to get underlying diseases. As a result, the mortality rate for elderly is lower than other age groups.

Moreover, vaccination is a crucial way to prevent the outbreak of diseases. But unfortunately, the effectiveness of vaccine that used on the elderly is various depending on their strength of immune system. For example, most developed countries recommend people with underlying chronic conditions and everyone aged >60 or >65, depending on individual country recommendations to get vaccination. However, the antibody response to vaccination was lower in older adults than in younger adults. Decreased concentrations of IgA and IgG antibodies resulted in delayed peak antibody titers and faster declines in titers, especially in old and frail individuals. For example, seroprotection against influenza strains is only 29%–46% in persons under 75 years of age, compared with 41%–58% in persons aged 60–74 years [5].

4. Impact on the mental health of the elderly

Pandemics has serious psychosocial impact to all the people all over the world, especially the elderly. Elderly will feel anxious, panic and depress when they find they have no ability to fight with this disease. As WHO suggested that isolation is the most effective way to prevent the outbreak of pandemic, a lot of people were be restricted with their movement. But this seriously influence the elderly, especially to those only have contact with others in the outside, older individual without close relatives or friends are more lonely, invisible or isolated, and are at greater risk. Clinical research studied the elderly in Austria. Three different analyzes used to evaluate the loneliness of older adults in 2020 and compare it to the previous years. The result showed that the rate of loneliness increased with the compare of previous years, especially in the elderly who lived alone. This clearly showed that most of the elderly were negatively influenced by loneliness. Apart from emotion, some situations had gotten worse and developed into illness [6].

Some old people generate negative feedback and develop into psychological illness such as MDD (major depressive disorder) and anxiety which are the most current disorders in this age group. Because of the lack of effective treatment and vaccine, elderly have no hope for the future. They are afraid of getting infected. Associate with the feeling of loneliness and anger that generated during pandemics, these factors ultimately contribute to the worsening of the psychiatric status of those individuals who do or do not receive proper care for the metal health disorders like depression and anxiety. As the disease progresses and isolation continues, the possibility for the breakdown of mental becomes imminent. Also, as the relatives were infected, this will lead to sadness and depression of elderly. According to the research conducted by Mazza C et al, 71.7% of 2766 participants showed that they experience a increase anxiety when having a relative infected with this disease [7]. As a result, pandemics may increase the burden of elderly for living and caused emotional suffering and frustration which may develop into mental health problems in the further.

At the same time, although quarantine is a good way to protect old people from pandemic, it would reduce in physical activity and sedentary behavior. Isolation at home means limiting space and resources, they don't know how to find the way to exercise online that young people will prefer. Lack of physical exercise is also a critical factor that cause negative impact on the elderly. Older people with underlying diseases need exercise every day in older to control their blood pressure. However, policy of isolation makes it impossible for elderly to do exercise outside but limited space at home. Doing exercises can help control psychiatric disorders and other disease like chronic diseases [8].

5. Precaution and procedures to reduce the impact on the elderly mental health during pandemic

Since COVID-19 lead to a negative impact on the mental health of the elderly. Loneliness caused by isolation leads to a depression and cognitive abilities, influencing the inflammatory responses regularity in the body, thereby damage the strength of immune system, the ability to concentrate and sleeping habits. Some procedures are needed to minimise the damage to the elderly.

The first one is to explain this pandemic to the elderly. As they being old, they may find it hard to get information in time. They may have some misunderstanding of the virus which causes panic among this group of people. They need to be explained that what is this virus and things that they need to do. Make them feel security is the most powerful way to ensure mental peace and the quality of life [9]. Government organs, news media, enterprises, institutions and old-age care institutions should strengthen publicity and guidance to create a positive public opinion atmosphere during the epidemic. The elderly is not familiar with the Internet and lack the ability to distinguish massive information. They are prone to hearsay, believe rumors and spread rumors. Therefore, through TV, radio, newspaper, Internet, wechat, QQ Channels in the first place to the whole society, especially the elderly real-time reporting epidemic prevention and control of the latest progress and the relevant requirements, and convey the central provinces, cities and a series of announcements about the epidemic prevention and control work, the first summary, editor, and push the epidemic prevention

and control knowledge, guide the correct and rational view of the disease in the elderly, not nervous, do not fear, eliminate fear, do not believe a rumor, not tale, sets up the letter Heart, actively participate in epidemic prevention and control efforts and actively foster a favorable atmosphere[10].

Second one is focusing on the elderly in who was currently live in old age homes or recovery clinics. Most of them have underlying diseases or psychological problems. They are the most vulnerable group and also cannot proceed isolation because their assistance requires several professionals. The way to prevent the development of mental disorder is offering the essential support which provide by the family, the public and health professionals and services [11]. for example, residents in the community work together and provide food to those old people who have difficult to go out. Also, some companies and departments from government can provide essential services and resources to maintain the basic needs of living for residents.

Third is that family members have responsibility to manage their daily requirements. For example, the necessary medicine and the guidance of treatment. Also, learning how to use Cellular devices and computers plays a crucial role in benefiting the elderly during lockdown. They can do physical exercise through internet and communicate with their family and friends, social circle, information about medical and psychological needs and so on which can reduce the loneliness they would feel [11].

At the same time, it is important to ensure the daily activities do of the elderly. Such as painting, listening music, doing literature and creating leisure moments at home. These activities can offer an opportunity for the elderly to stay in a healthy and active state. Moreover, simple guidelines should be given to the elderly so that promoted self-care and reduce anxiety and stress. According to the research did by Goethals et al. This research showed that among the people of ages 71-91, the need to perform physical activities at home is higher. So, it is necessary to help older people find a easy and safe way to do physical activities in a limiting space. WHO suggested that the best division of the length of physical activities is moderate-intensity for 150 minutes or vigorous-intensity for 75 minutes per week, or a combination of both. Doing exercise via the usage of online videos is also a good choice.[12].

Forth, public health organization has the responsibility to monitor the quantity of the elderly mental health. Although the sudden breakout of disease makes public health service under extreme stress, they should allocate resources to take care of the elderly's mental health. For example, the Chinese Psychological Association has also issued the "Guidelines for the Work of Psychological Assistance Hotlines During the COVID-19 Epidemic" and the "Guidelines for Online Psychological Counseling During Special Epidemic Situations" [13]. In order to provide professional suggestions and guideline for dealing with mental health problems. A study in China has showed that online psychological health service had been awarded as the most efficient way to solve the need of mental health care because of its high feasibility, during pandemic.

Finally, some papers advised senior adults to practice meditation, autogenetic training, and cognitive behavioral therapy to enhance their psychological resources and quality of life.[14].

But there are some problems. First, the percentage of utilization of online mental health service is low (3.7% of participation in the study had used this service after the outbreak of COVID-19). Second, the unbalance of development in China has larger the mental health gap. (Low-income family has low opportunity to receive this service). Third, in low- and middle-income countries, the effectiveness of online mental health interventions has not been assessed. Forth, the quality of online mental health services is difficult to guarantee in low and most middle-income countries [15]. Also, for some older people who have physical disability and chronic diseases may find the indoor exercise programme that is made for majority population is not safe and suitable for them. As a result, supervision is needed during the exercise.

6. Conclusions

With the outbreak of COVID-19 since 2019, the whole world face to a crisis situation. Not only the elderly, but the whole population have received influence in different degree in both physical and mental health. More awareness should be increased in the mental health of old people because the elderly is on more dangerous. It caused by the decrease in the strength of immune system and some underlying diseases. For dealing with these problems, the government and public should offer special care to them. Fro example, offering food for those old people who have problem to get out and provide guideline for them about how to protect themselves during pandemic. Family members could help them prepare enough necessities and also talk with them from internet if they are in isolation to make the elderly feel warmth. These procedures can help reduce the formation of mental health problems and reduce the negative impact on them. Through the positive psychological perspective and social support system, more psychological support is given to the elderly, so as to reduce their anxiety, depression and loneliness, and improve the well-being and standard of life of the elderly.

However, there do have some problems that can be improved in the future. For example, a lot of processes of communication and information technology are still based on the development of telemedicine technology, but it has not been widely used among the elderly. They may have difficulty in getting used to those technology and have some misunderstanding of the pandemic. And also, some gap in development of public health service between different areas causes the various strength in the implement of procedures. In the future, it is still necessary to take active prevention and control measures from the perspective of comprehensive management of the elderly for the improvement in the quality of psychological care for the elderly, meet their psychological care needs and reduce the psychological harm caused by the epidemic.

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