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Letter to the Editor

Analyze the psychological impact of COVID-19 among the elderly population in China and make corresponding suggestions



Since December 2019, multiple precarious cases of viral pneumonia, which related to the South China Seafood Market, have been reported in Wuhan, Hubei Province of China. Those cases were later confirmed to be infected by a novel coronavirus (2019 novel coronavirus, 2019-nCoV). Following, the World Health Organization officially named this new virus, which similar to SARS virus, to be COVID-19 (2019 Coronavirus Disease). For the time being, the National Disease Control Center has categorized it in the list of National B Class Infectious Diseases and managed it in accordance as the measures for prevention and control of A Class infectious diseases. According to the Seventh Edition of the New Coronavirus Pneumonia Diagnosis and Treatment Program, the epidemiological characteristics of the virus were pointed out and the population was generally susceptible.

Despite from younger generations in China, seniors are considered high risk under COVID-19 due to their effete immune system and are often associated with chronic underlying diseases. And the seniors are more severe after infection, so deaths are more common among the seniors and those with chronic underlying diseases. Therefore, this factor can accumulate stress and fear among the seniors. Faced with the sudden outbreak of Coronavirus, distinct from younger generations in China, the seniors not only face the disadvantages caused by relatively low immunity systems, but also need to overcome the challenges brought by the complex psychological environment in the special period of life. Therefore, we should pay more attention to the mental health of the elderly.

To this end, we carried out a survey on the psychological status of the elderly in China during the period of "COVID-19, using self-developed questionnaire which called Psychological Status of the Seniors during COVID-19. The questionnaire examines several factors which include: gender, age, married status, educational status, living condition, chronic medical history, previous mental illness, whether there are confirmed Coronavirus cases around them, whether to receive trainings on pandemic related knowledge, PHQ-9 Questionnaire, and GAD-7 Questionnaire. GAD-7 and PHQ-9 both have shown validity and reliability in content and internal consistence (Sawaya et al., 2016). A total of 1556 samples were collected, which 602 cases are male, and 954 cases are female; 706 cases age from 60 to 64 years, 336 cases age from 65–69 years, 263 cases age from 70 to 74 years, 115 cases age from 75–79 years, 136 cases age at least 80 years. This survey represented that 37.1% of the seniors during COVID-19 experienced depression and anxiety. Moreover, Qiu et al. (2020) have recently shown the emotional reaction of the aged (over 60 years old) is more obvious. The study found gender differences in this emotional response, with women experiencing more anxiety and depression than men. Survey represents seniors of all age segments have depression and anxiety issues. However, there was no significant distinctions between different age segments ($P > 0.05$), which may be related to the physiological changes and psychological characteristics of the seniors. Based on the results, we

suggest the psychological intervention strategies for seniors in this pandemic as follows:

- 1 Concentrate psychological attention on female seniors, low educated seniors, divorced and widowed seniors, and those who are living alone, having sleep problems and mental health issues, etc.
- 2 Due to seniors debilitated physical quality, and feeble immune system, and often associated with chronic underlying disease, decrease psychological capability, fragile information receiving and processing ability, most of the deaths in this crisis were seniors, whose are over 60 years of age patients, with poor physical condition. Therefore, Therefore, the impact of the pandemic on the physical and mental health of the seniors is more obvious.
- 3 The system and mechanism of psychological counseling and psychological crisis intervention for the seniors still need to be further improved, and psychological health education in the media and new entertainment methods should be strengthened to make it more acceptable.
- 4 If the emotional response is serious, it is recommended to call the psychological hotline, online consultation or visit a professional institution.

In short, the mental health of the seniors needs more attention. The society needs to pay more attention to the seniors when major public health emergencies occur, providing them more humane care and psychological interventions (Li et al., 2003). Based on psychological issues among different seniors age segments, the society and professionals need to provide seniors corresponding psychological interventions, to reduce the psychological damage and psychological sequelae caused by the pandemic crisis.

Authors' contributions: All authors contributed to the collection and interpretation of data and approved the final report. Haibo Yang conceived the idea for the Article. Hui Meng, Jiali Dai, Yang Zhang, Yang Xu and Baogeng Liu were coprincipal investigators and designed, implemented, and analyzed the data of this study. Jiali Dai wrote the code, Hui Meng did the analysis for the study, and wrote the initial draft. Yang Xu amended the manuscript and gave suggestions for data analysis.

Declaration of competing interest

The authors declare that they have no competing interests.

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