

A Virus Discriminates with the Old-age People: An Overview



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Abstract

The novel coronavirus disease or COVID 19 is caused by an RNA virus. It had started spreading across the globe since December 2019 from China and is linked with a severe infection of the human respiratory system. Although the mortality rate of this disease is not high, it has shown to be fatal for older adults. It was reported that patients who are above 55 years of age have three times higher mortality compared with their younger counterparts. Social distancing is the most vital measure to reduce the spread and severity of COVID 19. This measure though has proved to help curb the disease spread among the elderly; it has led to loneliness, depression, isolation, and other forms of psychological distress among older people. Especially, older people who stayed in old-age care homes are facing more problems as all these care facilities might not have adequate hygiene maintained. Besides, housing affordability has also become a challenge and also the bank interest rates have fallen during the pandemic situation. Prices for food and other necessities have increased with increasing demand resulting in further suffering for elderly people. In this present review, we are going to discuss the issues faced by elderly people in this pandemic.

Keywords: Old age, Coronavirus, economy, depression, social distancing

Introduction

Novel coronavirus pandemic or COVID 19 pandemic is the global health crisis and a socio-economical challenge faced by humanity since World War II. It had started spreading across the globe since December 2019 from China and is linked with a severe infection of the respiratory system mainly in humans. Though the mortality rate is not high the impact and global policy like lockdown and social distancing have snatched jobs and income of many people all over the world. The countries or states that are heavily dependent on tourism have lost their business with empty hotels for several months. Many people are not able to meet their daily basic needs. Experts are collaborating, generating more information about COVID 19, and recommending accordingly controlling the pandemic situation (Sifuentes-Rodríguez & Palacios-Reyes, 2020).

The novel coronavirus is highly contagious and transmission rate is high from human to human with an incubation period from 2- 14 days (Singhal, 2020). The disease is transmitted by inhalation or contact with droplets of infected persons usually by coughing, sneezing, or talking. COVID 19 has spread in all continents except Antarctica. Treatment is still available at a support level and no therapeutic antiviral drug is discovered yet and vaccines also yet to come. All

countries are strictly following the lockdown measures and social distancing. From education to administrative works, virtual online mode is on everywhere. Isolation of suspected cases is the first and foremost measure in coronavirus pandemic. Pneumonia, respiratory distress, and multiple organ failure are some of the acute coronavirus infection symptoms (Singhal, 2020). The novel coronavirus uses the receptor called angiotensin-converting enzyme 2 (ACE2) similar to the previous coronavirus outbreak in China long before in 2002 named SARS-CoV (severe acute respiratory syndrome coronavirus) which closely resemble bat coronavirus genome (Guo et al., 2020).

COVID 19 is a single-stranded positive-sense RNA virus and envelope contains small membrane protein with spiked glycoprotein projections. Some coronaviruses contain hemagglutinin esterase protein in the envelope. A typical coronavirus genome contains at least six ORFs (open reading frames) which codes for four main structural proteins – spike, membrane, envelope, and nucleoprotein attached to RNA and some other enzymes. Spike proteins are the major causative agent of neutralizing antibodies or inhibiting antibody production in the host (Mousavizadeh & Ghasemi, 2020).

Co-morbidities like cardiovascular diseases and cerebrovascular diseases are the potential risk

factors of COVID 19. In the severe cases of death secondary bacterial infection, liver and kidney damage, cellular immune deficiency, and sustained inflammation have been observed. The most serious and dangerous part of COVID 19 is the spike protein genome is constantly changing it to improve binding to human receptors. Persons with cancer, chronic kidney disease, type 2 diabetes mellitus, obesity, and anemia have a higher risk for severe illness by COVID 19. Among the isolated patients outside hospitals, shortness of breath, and chest pain is a symptom for an immediate medical emergency (Rod et al., 2020). In the same study, it is shown that age, elevated C reactive protein, D –dimer, albumin protein level, and body temperatures are the prominent risk factors of COVID 19 (Rod et al., 2020).

Impact of COVID-19 on Old Age People

It is seen that old people rather say people above 50 years are the most targeted people by a severe and acute form of COVID 19. The death rate among old people is also very high in coronavirus infection (Hans Henri P. Kluge, 2020). With increasing age, the risk of COVID 19 also increases as they have decreased immunity and body reserves. Another strong reason behind is co-morbidities which prevail in older people mostly such as hypertension, diabetes, chronic kidney disease, chronic pulmonary disease, etc. Poverty is another reason which usually prevails in older people and because of that they do not get balanced nutrition and food stock also. World statistics are saying that the mortality rate between 60-69 years is 3.6%, 70-79 years is 8% and above 80 years is 15-18% (Wang et al., 2020).

Acute respiratory distress is the major reason behind the death of older people. Close monitoring and timely treatment are required in case of older people infected with COVID 19 as the statistical data are showing that the average survival span of older people after admission to hospitals is only 5 days (Wang et al., 2020). Common symptoms present in the victims of elderly people are fever, cough, and shortness of breath, dyspnea, fatigue, lymphocytopenia, liver enzyme abnormalities, and acute respiratory distress syndrome mainly (Wang et al., 2020).

It is proven that medication for hypertension, diabetes, and chronic kidney diseases upregulate the angiotensin-converting enzyme (ACE)

receptors through which COVID 19 makes entry to the host cell (Shahid et al., 2020).

The latest proposed mechanism of entry of COVID 19 into the host cell is through ACE-2 receptors of lungs, epithelium, kidney, and gastrointestinal system. Chest radiographs of infected older patients are showing multiple lesions, peribronchial thickening, bilateral reticular-nodular opacities, pleural effusions, etc (Mousavizadeh & Ghasemi, 2020, p. 19).

The mortality rate is much higher rather highest in older people in almost all countries. hydroxychloroquine, a drug for malaria and autoimmune diseases, has shown efficiency against COVID 19 in vitro and in vivo also. Randomized clinical trials are done on 20 patients and seen that a daily dose of 600 mg hydroxychloroquine has made 57.1% of patients COVID 19 free in 6 days (Gautret et al., 2020). In the same study, it is also shown that the effect of hydroxychloroquine is reinforced by combination therapy with azithromycin antibiotic which is usually used for the common cold (Gautret et al., 2020).

It was also reported that the blood specimen from dead people infected with coronavirus showed a sharp decrease of lymphocytes especially CD4 and CD8 containing lymphocytes resulting in a suppressed immune response in older patients (Wang et al., 2020). It is a fact that for developing antiviral immunity CD4 and CD8 T cells play a vital role (Whitmire & Ahmed, 2000). Increases of inflammation all over the body are also seen the dead patients with various secondary bacterial infections (Huang et al., 2020).

Serum urea and creatinine concentration were shown to be higher in dead patients compared to the survivors of those who have recovered from COVID 19. This result indicates poor renal function among elderly patients who were infected with COVID 19 (Adapa et al., 2020). The prognosis of the disease is worse in patients above 60 years of age and thus it is recommended to boost the immunity of older people who are not infected yet or asymptomatic COVID 19 carriers. Respiratory failure and heart failure is seen very common reason for the cause of death. More medical interventions and close monitoring can reveal many secrets of COVID 19 infections and could help combat the disease more effectively (Adapa et al., 2020).

Social Distancing and Senior Citizens

Social distancing is the most vital measure to reduce the spread and severity of COVID 19. But it is seen in many studies that social distancing is the reason for psychological problems arising in people due to loneliness mainly. Young adults are using virtual platforms but the majority of geriatric people are not technologically friendly so they are showing unusual behaviors related to mental and physical health problems. Sense of loneliness and stress has increased a lot among elderly people mostly which is giving rise to drinking patterns, sleep pattern, recreational drug use, etc. in the USA (Emerson, 2020).

To reduce human transmission social distancing and sheltering at home is required in COVID 19 pandemic though it has the potential to increase psychological distress, depression along with suicidal tendency. Elderly people feel this distress more. Though people are engaging themselves in phone calls, computers, internet, and social media platforms like Facebook, Twitter, Instagram, etc. to overcome their mental stress during lockdown situation of coronavirus pandemic (Shammi et al., 2020).

Due to anxiety and stress faced by senior citizens during the global pandemic and lockdown situation, their food consumption and sleep have drastically reduced or elevated. Smoking patterns and alcohol consumption have also gone up among young adults to older people who have previous habitual patterns. Potential stress, loneliness, and health behavior changes are affecting the quality of life and subjective well being (Van Orden et al., 2020).

Physical, sensory, and cognitive functioning decreases with age but socio-cultural functioning remains activated throughout life. Few sessions of psychotherapy may be beneficial at this time as social distancing often comes with suicidal risk and negligence in self-care. Self-talking is observed among persons with social isolation and planning the safety for well being is a positive approach during social distancing. The most common emotions found in elderly people are guilt, anger, irritability, fear, and sadness. Telephonic psychological counseling can help to combat the situation but the problem is accessing and identifying the isolated individual cases is critical (Van Orden et al., 2020).

Impact of the Viral infection on Economic Status of the Aged People

As the fatality rate for older persons is higher in corona pandemic than younger persons, the government has made new policies for aged people during this crisis. The major problems faced by aged people are poverty, discrimination, and isolation. Economic well being plays a vital role in an emergency like COVID 19 pandemic. Social inclusion and solidarity must be strengthened during social distancing. The focus of every civilian and government must be on senior citizens with a humanitarian approach mainly to look after socio-economic outlook. Emergency support must be provided to older persons especially those who live alone (Li & Mutchler, 2020).

In the USA people above 65 years of age are facing a high rate of infection by a novel coronavirus and high economic stress and insecurity as well (Li & Mutchler, 2020). Social security and economic security of aged people are a growing concern during the pandemic. Social discrimination has heightened during this COVID 19 pandemic and people have lost empathy towards older people. The economic downturn has many short terms and long term consequences such as poverty and ultimate death (Nations, n.d., p. 19).

Not only for this pandemic situation but in normal times also has a big population of older people usually struggled financially. This pandemic has shortened the life expectancy or life span of many people especially older ones. Housing affordability has also become a challenge and also the bank interest rates have fallen during the pandemic situation. Prices for food and other necessities have increased with increasing demand. There is a sharp disparity between demand and supply. High medical expenses from medications to healthcare services are also a serious issue for single older people mainly in the corona pandemic (Li & Mutchler, 2020).

Policy effort is required by the multi-level approach to give support to older people during a national emergency. Strategies are needed to get people back to work so that they can earn their daily bread is an essential parameter in developing countries and developed countries as well. Health plans and pension schemes must be revised and strengthened. The average cost of living and family income must be correlated by the government to support old age people to sustain

their rights to live and rights to health. Different types of insurance, loan facility, and mortgage facility with very low-interest rates can be offered by the government to support the living of older people (Li & Mutchler, 2020).

Policies for Old Age People

National policy on senior citizens 2011 in India has stated that elderly women need special attention as the aging process is faster in females compared to males. The areas which are covered in the policy are rural poor, income-generating activities, counseling, career guidance, training, long term savings policy, institutional care, old age home, healthcare insurance, old-age pension scheme, etc. UNICEF is saying that in the current situation young people can help and support older adults in many ways. Every person must understand the concept of social distancing required in COVID pandemic but not social isolation. The social stigma and negative stereotypic attitude related to coronavirus must be removed in a rational way (Sundararajan, 2020).

Age discrimination can have an adverse effect on getting services and goods by older persons. Food insecurity and medical insecurity are the two prominent problems faced by older people during global lockdowns and social distancing prevalence. Anxiety and fear of illness and death are engulfing the lives of older people and disrupting their normal daily routines and habits. To foster healthy aging during pandemic world health organization (WHO) have created toll-free number and Whatsapp group also to guide the elderly people by giving health-related information and to support and care socially (*Older People and COVID-19*, n.d.).

Ensuring equal access to healthcare and strengthening social support is the area of utmost importance during a pandemic for aging people mainly. Community service must be provided by social care workers. The digital gap or digital backwardness can also affect the ability of older persons to make use of different basic needs services. During epidemics and pandemics rate of malnutrition increases and it is a general trend. This malnutrition gives rise to the rate of infections as to build up body immunity balanced nutrition is needed with lots of vitamins and antioxidants (Elkbuli et al., 2020, p. 19).

Many older persons who live in long term care facilities such as old age homes and chances of

infection are more in such cases. Quality of food and hygiene and sanitizations are compromised at old age homes. Visitor policies are also not organized at old age homes and thus mental health may be in a good position but at the same time, the physical health of residents is at risk (World Health Organization Regional Office for the Western Pacific, 2020).

Psychological Implications

In normal situations old age people are at higher risk of getting psychological disorders like Alzheimer's and dementia. In a pandemic situation like COVID 19, mental health is mostly affected as social distancing has been started as a daily practice. Geriatric mental health is worse affected by COVID 19 pandemic with depressive symptoms which is paralyzing the cognitive and emotional functions (S Mukhtar, 2020).

Home isolation and social distancing have reduced physical activity and the dependence on others by older adults. Morning and evening walk and talk in the park, voluntary services, meetings, and congregational gatherings all are disrupted during social distancing and home quarantine. Social connectedness and loneliness are giving rise to depression and anxiety among all persons not only older adults. Depression and dementia symptoms are arising among older adults as they become unable to retain information or unable to understand anything and permanent sadness is engulfing the daily life (Chong et al., 2020). Tele-health services can foster and maintain quality of life and subjective well being among older adults (Elkbuli et al., 2020, p. 19).

In some research, it is seen that younger adults are at greater risk in terms of drug addiction, alcoholism, and suicidal tendency compared to older adults during COVID 19 pandemic. Family and work-related stress are more among younger adults but due to weakness in the body and immune suppression older adults are suffering from a phobia of coronavirus. Healthcare professionals must innovate novel ways to identify and highlight the mental health well being of older persons (Philip & Cherian, 2020). Pre-existing illness is crucial for older people to get infected by COVID 19. Often respiratory distress or breathing trouble is connected to anxiety or panic attacks. Anxiety and fear of death can make coronavirus infection more acute especially among older people. Supporting with compassion and kindness is not enough during

the pandemic. Good quality communications and accurate information update is a requirement to reduce and manage the anxiety caused by the pandemic. On the other hand, psychological support services are required in a virtual mode to facilitate mental health (Dubey et al., 2020).

Hospitals and nursing homes must be equipped with trained and qualified staff to provide necessary psychosocial supports to elderly patients. Managing urgent mental and neurological complaints should be the prior concern by healthcare professionals. Ensuring the availability of groceries, food stocks, and medicines also ease the level of anxiety among older adults. Daily simple physical exercise and creative productive work can also relieve depression and anxiety during the pandemic. Mental stress can weaken the physiological immune system and increases the vulnerability to get infected (Banerjee, 2020).

Social distancing often creates emotional distancing which can affect elderly persons in multiple ways. Lockdown and social distancing take away mobility, freedom, autonomy, and self-dignity which can have adverse effects on people of all age groups especially the children and the elderly persons. An unprecedented outbreak of coronavirus will make us more strong and hopeful if we fight together and will give a more fruitful post-pandemic life (Indulekha Aravind, 2020).

Conclusion

Security is the key step to ensure mental peace and quality of life. Social connectedness with loved ones can remove loneliness and can foster social integration. Emotional support is mandatory for those who are living alone. Pandemic related anxiety can be eased only by the right information at the right time. Tele-health facilities are the best rather than physical access. Surgeries like hernia, cataract, knee replacement, etc. better are avoided during the pandemic. Ensuring safety and dignity, social workers must help the elderly people who live alone. Those who live in old age homes must be given special care such a sanitization, cleanliness, balanced nutrition, timely daily medicines, age-appropriate physical activity, etc. Self-medication must be avoided as it can have a fatal effect. Tele counseling services and essential home delivery and food delivery services can help an elderly person during social isolation. Families and

caregivers must be sensitive in dealing with an elderly person. This is a fight or struggles for our existence and elderly people must be integrated into this fight so that they do not feel left out and not needed by society.

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