Ensuring Old Lifestyle: A Factor Found In A Successful Means Of Healthcare Management In Older Adults During COVID-19 Pandemic.

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Abstract
Since the outbreak of SARS-CoV-2 tumbled many aspects of our society, particularly in healthcare of older adults, it is evident that the widespread of SARS-CoV-2 or COVID-19 in older adult comes from background condition which classified into 3 main categories: physical, mental, and social background. Each background has been impacted with different problems whether it is a limitation of physical activity, increasing anxiety due to loneliness, and etc. In order to counter these impacts and facilitate the livelihood of older adults, new inventions of both technology and policy had been established to counter the problems found in older adults. Overall, it is seen that many successful techniques of guaranteeing mortality during this epidemic are obviously one-way in terms of function. In other words, effective approaches for managing the lifestyles of older adults are simple, such as delivering information, ensuring a consistent lifestyle, and meeting medical needs.

Keywords: SARS-CoV-2, COVID-19, older adults, livelihood, healthcare management

Introduction
Since December 2019, the world has entered the era in which all connections between each other are restricted to almost zero percent. This is due to the pandemic of a new type of SARS-CoV-2, also known as Coronavirus or COVID-19, which originated from Wuhan in China. The outbreak of this disease in Wuhan turned into a worldwide pandemic in a short period of time. With the patient displaying symptoms from fever to ageusia, early detection and investigation of this disease is hard and complicated. Another factor influencing the severity of the spreading is the accessibility to the suitable equipment. This increases the risk of factors such as the evolution of COVID-19 virus [1]. Based on the online data from the World Health Organization (WHO) dashboard on 28 July 2021, the total reported cases of COVID-19 patients are approximately 195 million cases worldwide, with roughly 614,000 cases daily and over 4.1 million deaths [2]. This data has a high chance of increasing, especially in Asia. Surprisingly, Thailand has the most Covid-19 cases daily at roughly 20,000 cases with a major group of patients being children and elderly due to low immunity. This led to many governments issuing the social-distancing policy in order to counter the spread of COVID-19. Even though this policy helps mitigate the spreading, it comes with restricted public interaction. Since public activity became restricted, another major problem has risen within the global pandemic which is mental problems [3].

As seen from the statement above, elderly is one of the most affected populations due to 2 key factors. The first factor is the physical condition of elderly. The study conducted by De Pue et al has found that roughly 41% of COVID-19 patients in Belgium are older than 60 years old. Moreover, almost 96% of death-related cases are also elderly. With the high mortality rate combined with significant infection rate, this led to the establishment of new regulation which is a social-distancing policy in order to reduce the public interaction which proves successful in reducing infection rate in certain countries. However, the effect on issuing this policy tends to be
troublesome due to an increase of anxiety in household units with older adults and children.[4] Likewise, a study by Brooke and Jackson had found that there is a noticeable decline in activity level, quality of sleep, and livelihood of elders during the pandemic. It is also found that since mobility and outdoor activity has been restricted, elders are facing physical problems such as frailty. Likewise, it could also be implied that as older adults already face cognitive decline as part of common aging changes, which is moderated by several lifestyle variables such as physical activity, engagement in stimulating activities and social network. Moreover, COVID-19 also causes social isolation and loss of activity due to physical distancing policy which might affect both physical and mental functioning of the older adults [5].

Mental illness is one of the key factors affecting older adults. From the study conducted by Grolli et al., it is evident that approximately 20% of the world population who are older are facing depression and anxiety during COVID-19. To be more precise, depression becomes lethal to older adults due to its relation to a decline in activity level, sleep quality, wellbeing and cognitive ability. This is due to the fact that, without preventive treatment, it is essential to minimize close-distance interaction and isolate patients. This causes a spread of anxiety among elders, leaving them exposed to mental problems which may be developed into more severe mental disorders like suicide [6].

In brief, the objectives of this review article are to explore the multidimensional impacts of COVID-19 pandemic in older adults, as well as give some recent care methods in solving the possible impacts experienced by the older adults which facilitate the new-normal lifestyle and the quality of life during COVID-19 pandemic.

**How Covid-19 Impact Older Adult?**

Since the outbreak of COVID-19, it is evident that there was a significant increase in mortality rate in older adults, with the major factor being the increase in health problems and decline in wellbeing. Furthermore, as seen from the study conducted by De Pue et al, it is found that approximately 76% of older adults stated that their well being during the outbreak significantly declined in the fundamental seven dimensions including standard of living, health, safety, community connectedness, future securement, relationship, daily satisfaction, subjective well being, and achievement in life [4].

In addition to the aforementioned paragraph, COVID-19 impacts on the top priority of our life during the retirement age which is our well-being. Moreover, the impact of COVID-19 on our well-being can be derived from the seven dimensions into 3 main sections consisting of Physical impact, Psychological impact, and Social impact.

**Physical Impact**

Firstly, it is undeniable that, when talking about a major impact on older adults, healthcare management is a top priority. During the pandemic, COVID-19 has a concerning impact on older adult health in terms of deteriorating immune system which is already low in many individuals. To be more precise, as seen from a study by Grolli et al., the infection rate in older adults increases drastically due to the low immunity, thereby increasing the susceptibility to infection which leads to more severe symptoms found within older adults. In other words, the severe conditions in older adults are often related to each individual's health. One of the prime examples is older adults who suffer from chronic disease which are found to have more severe symptoms compared to normal older adults. With the uncontrollable variable such as the condition of symptoms, it is most likely that older patients usually have slower rehabilitation than normal patients [6].

Another dimension in relation to health conditions which are affected by COVID-19 is the limitation of physical activity due to the social-distancing policy. It is found that the decline in physical activity affects many age groups including older adults. It is evident that, with reduction in physical activity, many older adults are facing certain health problems such as weight gain, decreased mobility, and worsening of health problems or developing new conditions. Some individuals with a chronic health problem are facing a more severe effect of the pandemic. For instance, in normal circumstances, some older adults who lose their hearing ability usually rely on the lip sync technique in order to communicate with others. Therefore, due to the spreading of COVID-19 which leads to people wearing a mask, older adults with hearing loss have a problem in conversation with other people. Furthermore, with old age comes
problems of memory recognition, older adults are most likely to become forgetful about their current situation. This leads to an increasing chance of infection due to forgetfulness of the situation or prevention procedure \[7\].

**Psychological Impact**

Despite the aforementioned impact, it is also essential to not only prioritize our body but also our mind and soul. Likewise, the mental health of older adults during the outbreak is as important as their physical health. During the pandemic, older adults are faced with a variety of mental illnesses. It had found that approximately 7% of all older adults worldwide are affected by Major Depressive Disorder (MDD) which is a technical term for depression and roughly 3.8% were affected by anxiety. Therefore, the proportion has strengthened the fact that depression and anxiety is one of the major mental illnesses found in older adults. Furthermore, it is also evident that, due to the government policy on restricting public interaction between individuals, the restricted communication between older adults results in abandonment not only from peers but also family. As a consequence, the restriction of communication leads to a promotion of loneliness which later causes a number of psychotic disorders. Some of the common expressions found within the individual are emotional suffering and frustration which can be detected through action and moods of older adults. If this type of expression belongs to a single individual, it won’t become problematic. However, this behaviour is often expressed across all groups of older adults which causes a spread of negative impact on quarantine life in both physical and psychological health. The study also suggested that, since COVID-19 causes death in some old patients, individuals who lost their partner or relative to disease have a higher chance of becoming depressed or self-isolated \[8, 9\].

**Social Impact**

Although both of the aforementioned impacts are more important compared to this current field, It is undeniable that social impact plays a significant role as a beacon of hope for older adults through the pandemic. It is seen that many older adults are likely to prefer physical interaction without any physical distraction. This displays that older adults prefer physical methods like physical touch and facial expression to communicate in order to interact with ease and smile. Therefore, due to the pandemic forcing people to wear masks in public combined with social-distancing and lockdown policy, the physical interaction that older adults long for have been restricted to almost none. This leads to less interaction between older adults along with home-isolation, thereby reducing the livelihood of that individual. Furthermore, it is also found that older adults often rely on religion to decrease their stress. Since religion teaches us the value of life and righteous path, it has become a suitable method for older adults to rely on. With the current pandemic causing religious places closing down, this further reduces the sanity of older adults \[10\].

**Recent Care Method In Solving Problem In Older Adult During Pandemic.**

Although the overall impact of COVID-19 is severe to older adults worldwide, scientists and medical workers had already come up with a countermeasure for the spreading of COVID-19 in various methods which have different approaches to prevent and protect older adults from COVID-19. Likewise, since each of the methods has different purposes on preventing the virus, there is always the advantage and disadvantages of each method which some will discuss as follows.

**Technology help older adult coop up with the current pandemic**

It is undeniable that technology has become one of our essential resources. Since older adults prefer physical communication with each other, the social-distancing policy has restricted their participation routine. As a result, scientists have used communication technology for older adults to be able to continue their communication through networks. It is evident that communication technology plays a major role in increasing a connectedness between each other during the pandemic \[11\]. Some of these technological inventions had already shown a significant effect on older adults.

**ICT**

Information Communication Technology, commonly known as ICT, has been used throughout 2020 and 2021 as a communication medium for older adults. A study has found that ICT has not only improved the
living conditions of older adults but also boosted their public participation through social media. The secret of achieving this result is based upon a designed ICT, which is a subunit within the general ICT, specifically for older adult lifestyle. The main component of this ICT is to overcome the complicated technological step, as well as consider their desires and preferences [12]. Furthermore, another study has suggested that ICT such as Whatapps had significantly reduced loneliness in older adults. Therefore, it can be concluded that ICT not only had an effective impact on reducing feelings of loneliness in older adults but also had been approved through older adult usage [13].

Telemedicine

Another interesting technology used in healthcare services for older adults is telemedicine. It had been used as a connection medium between patient and physician from long-distance. This is due to the fact that COVID-19 has restricted either our social interaction or transportation product. The definition of Telemedicine is the exchange of medical information between online sites through the use of electronic devices in order to improve patient well-being [14]. This allows physicians to manage the patient's well-being with the minimum interaction between individuals, thereby reducing the risk of spreading disease as well as reducing stress in patients.

In addition to the aforementioned point, it is evident that telemedicine has been used in responding to emergency cases with an ability to provide the additional support in diagnosis critical situations which, therefore, allow patients to pass through the Emergency Department more quickly [15]. Likewise, another prime example is the establishment of an ED telemedicine response service in New York Presbyterian Hospital. This had displayed the effective method about the situation and severity of patients with various factors. As a consequence, it is proven that telemedicine has significantly reduced the waiting time within ED. This allows hospitals to focus on more ED patients which increase everyday [16]. Moreover, telemedicine has been used in the screening process of COVID-19 which allows physicians to be able to screen for patients more accurately, thereby reducing overall infection spreading.

Role of regulation and policy during COVID-19 pandemic

Despite the advancement of medical technology which pushes the boundary of medical knowledge, the ongoing process of preventing COVID-19 spreading would not succeed without the support of the government in publishing regulation and policy related to pandemic. Without the proper regulation, it is evident that COVID-19 is correlated to an increased risk of dying in older adults, especially individuals with chronic diseases or immunodeficiency. One of the prime examples is in Italy where the average life expectancy of COVID-19 patients who lost their lives was approximately 79 years old, which was 15 years older than the national sample of COVID-19 infected [17]. It is evident that in many pandemics, a successful prevention of spreading is a result from a good leadership of the government of the nation. In many cases, a necessary skill used in preventing pandemics consists of five fundamental elements: a calm mind, communication, cooperation, coordination, and providing support. If the government consists of these five elements, they are likely to be able to overcome the pandemic [18]. Likewise, these five factors can be found in some regulations and policies related to healthcare of 2 major groups: children and older adults. As a result, it is seen that some new policy and regulation had been published to counter the limitation of COVID-19 in many aspects of society. In which some of them would be mentioned as a prime example for some significant dimension.

“10 Suggestion from WHO”

As a global health regulation and medical media, WHO has played a major role in controlling and distributing knowledge about COVID-19 to many countries. One of their suggestions is the “10 Suggestion from WHO” recommended for households with children and elderly to ensure their living conditions for these 2 age groups [19]. The detail of the suggestion is for older adult as well as children to:

1. Follow their regular routine if possible and create a schedule.
2. Maintain a social connection. Use any social media to communicate with loved ones and people you trust as often as possible.
3. Engage in some form of physical activity daily. Reduce long periods of sitting and establish a daily workout routine of at least 30 minutes with a suitable activity for your age.
4. Maintain a balanced diet along with enough hydration.
5. Avoid smoking and drinking during the pandemic since these activities would worsen your health.
6. Determine the update on COVID-19 situation as much as possible. However, avoid too much exposure to such news since it might cause anxiety.
7. Spending more time with your favourite activity or hobby.
8. Continue on your medication if you have any ongoing health condition.
10. If you feel anxious or depressed, seek support from a loved one or therapist.

With the aforementioned suggestion, it could be seen that WHO ways of action involve the mass scale population since almost all suggestions can be performed within a household unit, as well as easy to perform. In my viewpoint, this could potentially raise public awareness and morality in older adults because if they follow this suggestion, they will be able to continue on their daily routine along with creating their personal awareness of the situation outside their household. This might result in more older adults spending their time in private property rather than public, thereby reducing the COVID-19 host.

Social Support Network
Social Support is also one of the commonly used methods since it is a source of social assistance that isn't formal. It is particularly significant because a lack of social support is linked to lower psychological and physical well-being. Due to physical isolation, social support for the elderly has become increasingly more important during the Covid-19 pandemic. The social support network can be classified into 5 categories: Family-dependent, Locally integrated, Self-contained, Wider community-focused, and Private restricted. This method provided the positive result from the survey in Slovenians, A data aggregation approach for symbolic data was used to classify the emotion networks. Different types of social support and characteristics were grouped together. The results show that over 50% of older adults with social support satisfaction has increased compared to those without social support. This data is valuable in designing the suitable approach in healthcare for older adults during COVID-19 [20].

Conclusion
It is undeniable that the effect of COVID-19 is tremendous in both physical and mental health conditions in general, especially those who have low immunity like older adults. This age group is mostly impacted by this pandemic due to their long-lasting chronic disease which becomes a burden during the pandemic or lack of exercise due to lockdown policy. Furthermore, one of the first causes of mental state deterioration in older adults tends to be the abandonment from relatives and loneliness. In order to counter such impact would require many aspects of healthcare management such as technology and government policy. However, it is evident that many successful means of ensuring livelihood during this pandemic tend to be a one-way direction in terms of function. In other words, many successful methods in managing older adult life are straightforward such as providing information, ensuring a continuous lifestyle, and servicing medical needs.

Generally speaking, in order to successfully manage the living conditions for older adults during COVID-19 pandemic, both physical and mental conditions, as well as maintain each individual's old lifestyle need to be considered when designing healthcare methods. If these 2 conditions were fulfilled, that healthcare method would likely serve older adult demands.

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