

Caregivers and alzheimer's disease through the covid-19 pandemic

Marcos Altable^{1*}, Juan Moisés de la Serna²,

1. Private Practice of Neurology. Neuroceuta. (Virgen de África Clinic). Ceuta, Spain

2. Department of Education. International University of La Rioja (UNIR) Madrid, Spain

COVID-19 pandemic has carried a high number of deaths worldwide. Most of those who died were older adults, especially who previously suffered from health problems. This population are more vulnerable, especially during the expansion and subsequent pandemic by COVID-19. Since higher levels of distress, anxiety and depression were observed among caregivers of dementia patients and Alzheimer's disease individuals, we may be able to prevent or reduce the harm of the COVID-19 pandemic and its consequences for patients with AD and related dementias (ADRD) and their caregivers.

Introduction

Any caregiver, as a relative as a professional, may find their job difficult through the concomitance of COVID-19 pandemic. Caring for people with Alzheimer's disease (AD) and other dementias during this period of social estrangement can be a challenge, but a few simple recommendations can be helpful.

Older adults are more vulnerable to the onset of natural disasters and other types of crises, and this has especially true during the expansion and subsequent pandemic by COVID-19 (1). With the Severe Acute Respiratory Syndrome (SARS-CoV-2) pandemic, the number of deaths has increased worldwide (2) (3). Furthermore, most of those who died were older adults, especially who previously suffered from health problems (4).

Globally, more than 50 million people have dementia, and a new case occurs every 3 seconds (5). Dementia is a pandemic in our increasingly ageing population (6).

The union of the two pandemics has created great concern for people who have dementia and their relatives or caregivers (7). A new environment can lead to increased stress and behavioural problems (8).

People with Alzheimer's disease have more difficult access to the necessary information and news about the COVID-19 pandemic. It can be difficult for them to learn and remember recommendations for their care and protection. Such as using a mask or understanding the pandemic data they receive. All of this is an increased risk of being exposed (9). Caring for a loved one with AD (or another dementia) during the pandemic brings challenges, especially with the implementing social distancing measures.

Tom Meuser, director of the Center for Excellence in Aging and Health at the University of New England, said: "there is no perfect solution for anyone these days, but if you are a caregiver of someone with dementia in your home or a facility, you face territory completely unknown"(10).

Now we need to unite even more to create an unyielding commitment and adherence to the principles of decency, justice and equity in the allocation of scarce health and social care resources. By doing this, we will demonstrate our caring potential and capacity in a way that reflects our shared humanity, not only in the current crisis but into the future (11).

The main recommendations are summarized here. However, as we delve into the new situation, more points are emerging, in the face of this exceedingly tricky scenario.

The most important thing to do is to practice right general infection control measures, including proper and frequent hand washing, as well as the use of personal protective equipment (PPE) when indicated.

Because people with Alzheimer's and other types of dementia can forget to wash their hands, caregivers should be more attentive to help people practise safe hygiene. When caring for someone with COVID-19, hygiene standards (12) must be met to prevent contagion and therefore, its possible spread (13).

Hands should often be washed with soap and water for at least 20 seconds or with a hand sanitizer, which contains between 60% and 95% alcohol. The entire surface of the hands should be washed and rubbed until dry. Avoid touching the eyes, nose and mouth with unwashed hands. Clean often and disinfect daily contact objects. Put on a mask and gloves when getting in touch with the recipient's blood, faeces or bodily fluids, such as saliva, sputum, nasal mucus, and urine. Put on the mask before entering the patient's home.

When removing the PPE, the gloves must be removed and discarded (do not reuse them). Then, wash the hands with the use of soap and water or hand sanitizer with alcohol. Next, remove the mask and discarding it, immediately rewash hands. If possible, remove the PPE when leaving the sick person's home and throw it away. Under normal circumstances, masks should also not be reused. However, there are not enough masks available to follow the standard practice of throwing masks after using them.

Only due to impossibility supply of masks, you may need to reuse them.

In some situations, caregivers can help the patient wash their hands washing, whether you set a time for it, or putting indications in the bathroom or in the kitchen sink for washing his hands for 20 seconds. This routine which leads to a repetition helps positive changes in people with moderate dementia. Likewise, the physical demonstration of the behaviour to be followed can be useful in this education.

In the middle of this whole situation, the sick person can lose his mind and present unnecessary stress because not being able to learn and remember new information. Action must be taken as the situation of the patient.

Present the situation in simple terms

With the COVID-19 pandemic in daily life, what information to select to a person with Alzheimer's disease? How to explain the needs and social distancing? The responses depend on the exact condition of the person (14). It would help if you spoke to a family member or patient about the pandemic in a way that he can understand according to sick's state. It is also good to calm and comfort.

It is crucial to know if the small details stimulate these patients, and if they are very distressed or otherwise, they are calm in daily life. The caregivers must ponder whether it is useful to share many details of something difficult to understand.

Because the memories fade in persons suffering AD, a person with moderate dementia can still clearly remember his youth. The first and old memories to explain and contextualize the present can help clarify the pandemic. For example, World War II and other historical situations that brought rationing, shortages, isolation, among others. Although today is not the same, there may be parallelism.

Avoid disputes

People with AD may not be able to process information correctly, so it is best to avoid discussions about COVID-19.

Know the emotional state

The first area of investigation should be an exploration of the neuropsychological and psychological effects of quarantine on healthy, previously socially and affectively active older individuals (15).

Since the rules of social distancing and isolation can make more difficult to be with important persons for your own, family members and caregivers can be agitated, even depressed. The AD patients may become confused or extremely nervous with any change in the home environment. Therefore, it is essential to keep the environment calm and to have a plan for mediations or

strategies to help situations in case the patient or behaviour becomes too challenging to handle. Caregivers should be honest with how they feel and do not hesitate to ask for help if they feel overflowed. Caring can be a difficult job on a typical day. Furthermore, at a time when people undergo more stress and anxiety as well, they suffer a loss of daily routine, it is crucial to think of yourself and recognize what takes to get your job well done. This can be to take a snack, read the newspaper, going for a walk (where allowed by law), taking a nap, etc.

Preserve routines

The day-to-day life of a person with AD always results more comfortable with guidelines for tasks, as well as simplifying tasks, schedules and routines. In the exceptional situation, we are experiencing now, home confinement means not being able to continue with some of the usual routines, such as attending adult day centres, go for a walk, and visiting or receiving visits from friends or family. For this reason, we now need to generate new routines, because maintaining order during the day, including some schedules, will carry the sick person from a frame of reference.

Promote physical activity and cognitive and functional stimulation

It is necessary to make the person with AD participate in the tasks and daily spaces of leisure and activity. Family and caregivers should facilitate movement and psychomotricity for maintaining good physical condition in a cared person, along with cognitive stimulation. These measures help to maintain autonomy as long as possible. Conveniently, people with dementia keep the maximum cognitive activity dependence on the ability of every person. People who care this kind of patients can carry out psychostimulation activities programs (cognitive exercises, board games, reading newspapers, crossword puzzles and other tasks).

Moreover, on the other hand, following daily assignments that have a cognitive component and they are significant for the person with Alzheimer's disease (make the beds, cooking with supervision, set the table for meals, etc.). These activities stimulate and entertain them and improve their self-esteem because they feel useful. Another activity could be a conversation about objects with a strong emotional charge (letters, postcards, old photographs). Too, be busy and supervised with crafts, small house responsibilities, taking care plants or pets. Of course, they are adapted to their possibilities (stage of the disease).

Take advantage of new technologies

Take advantage of new technologies and communications, such as computers and tablets or

smartphones, to keep patients in contact with their loved ones, friends, etc. For example, to teach as far as possible, the use of these devices. This has shown that, despite age, creates new synapses and circuits that are very beneficial, since you are manipulating something that they probably do not know or never used (16) (17). Absolutely new for your brain and competing with the loss of neurons, synapses and circuits that occur in AD.

Caring for the caregiver

Finally, it is crucial to remember that the caregiver will be subjected to pressure, in many cases, higher than usual and that they must attend to their own care. For this reason, more than ever, caregivers must find alternative ways to relieve themselves, try to have small spaces for them and to look for strategies to manage anxiety (5). All caregivers are susceptible to anxiety, depression and other psychological disorders.

The evolution of the COVID-19 pandemic can be stressful for individuals and communities. Each person reacts differently to traumatic situations. There are a few recommendations that can be taken to help avoid stress and keep mentally and physically healthy: evade excessive exposure to media coverage; take a break from watching, reading, or listening to news; take care of the body breathing deeply, stretching or meditating; try to eat meals healthy and well balanced, exercise (comply with the confinement regulations of each country); get enough sleep and stay away of alcohol and drugs and have a good support network to share concerns, information, problems and feelings with friends or family.

References

1. Esposito L. How Coronavirus Affects Older Adults. U.S. News. -Available at: <https://health.usnews.com/conditions/articles/how-coronavirus-affects-older-adults> Published 2020. Accessed April 26, 2020.
2. Wang H, Li T, Barbarino P, et al. Dementia care during COVID-19. *Lancet*. 2020;395(10231):1190-1191
3. Cipriani G, Fiorino M Di. Access to Care for Dementia Patients Suffering From COVID-19. *Am J Geriatr Psychiatry*. 2020;0(0)
4. Lloyd-Sherlock P, Ebrahim S, Geffen L, McKee M. Bearing the brunt of covid-19: Older people in low and middle income countries. *BMJ*. 2020;368:m1052
5. Alzheimer's Disease International World Alzheimer's report 2019: attitudes to dementia. <https://www.alz.co.uk/research/WorldAlzheimerReport2019.pdf>. September 2019

6. Fox NC, Petersen RC. The G8 Dementia Research Summit-a starter for eight? *Lancet*. 2013;382(9909):1968-1969
7. The Lancet. COVID-19: protecting health-care workers. *Lancet*. 2020;395(10228):922
8. Kales HC, Lyketsos CG, Miller EM, Ballard C. Management of behavioral and psychological symptoms in people with Alzheimer's disease: An international Delphi consensus. *Int Psychogeriatrics*. 2019;31(1):83-90
9. Brown EE, Kumar S, Rajji TK, Pollock BG, Mulsant BH. Anticipating and Mitigating the Impact of the COVID-19 Pandemic on Alzheimer's Disease and Related Dementias. *Am J Geriatr Psychiatry*. April 2020
10. UNE News. Tom Meuser discusses efforts to assist older adults during the COVID-19 crisis with Maine Public | UNE News | University of New England in Maine, Tangier and Online. UNE News. Available at: <https://www.une.edu/news/2020/tom-meuser-discusses-efforts-assist-older-adults-during-covid-19-crisis-maine-public>. Published 2020. Accessed April 26, 2020
11. O'Shea E. Remembering people with dementia during the COVID-19 crisis. *HRB Open Res*. 2020;3:15. doi:10.12688/hrbopenres.13030.1
12. WHO. Coronavirus disease 2019. WHO. Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>. Published 2020. Accessed April 26, 2020
13. Weiss C. Science Saturday: More COVID-19 cases, take common sense precautions. *Mayo Clinic News*.
14. Sirven JL. Clínica Mayo. Available at: <https://mayocl.in/3aWnq2d>. March 2020
15. Devita M, Bordignon A, Coin A. Covid-19, Aging and Dementia: Research Topics and Remote Intervention Proposals.; 2020. doi:10.13140/RG.2.2.16012.87687
16. Greenwood PM, Parasuraman R. Neuronal and cognitive plasticity: A neurocognitive framework for ameliorating cognitive aging. *Front Aging Neurosci*. 2010;2(NOV).
17. Bergland C. How Do Neuroplasticity and Neurogenesis Rewire Your Brain? *Psychology Today*. Available at: <https://www.psychologytoday.com/us/blog/the-athletes-way/201702/how-do-neuroplasticity-and-neurogenesis-rewire-your-brain>. Published 2017. Accessed April 26, 2020