

Cite as: Altable M, de la Serna JM. Caregivers and Alzheimer's disease in the COVID-19 pandemic. J Glob Health 2020;10:0203024.

Caregivers and Alzheimer's disease in the COVID-19 pandemic

Marcos Altable¹, Juan Moisés de la Serna²

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

²Department of Education. Universidad Internacional de La Rioja (UNIR), Madrid, Spain

Photo: <https://pixabay.com/es/photos/senior-covid-corona-virus-corona-5088204/>.



Older people are more vulnerable to infections, including coronavirus disease 2019 (COVID-19) caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), which is known to increase mortality and with a fatal outcome [1,2]. Although all age groups are at risk of contracting COVID-19, it is a more significant threat to older people because of their underlying comorbidities [1,2]. Because of the absence of a vaccine or cure, and the fact that COVID-19 is mainly transmitted person to person, people have been encouraged to stay home to prevent the aggressive and rapid spread of the pandemic. Concerning age and comorbid conditions, elderly also have to contend with lack of social contact, as well as fear of an imminent food crisis and a

possible deadly famine, which in turn can result in adverse mental health outcomes including fear, stress, anxiety, depression, and suicidal ideation [3].

Dementia has been declared a Global Challenge [4]. There are over 9.9 million new cases of dementia each year worldwide, implying one new case every 3.2 seconds [4]. Dementia care is a long journey challenged with significant economic burden, caregiver distress and increasing service demands. These challenges will have a significant impact on the health care system, as well as professional and family caregivers.

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.

Any caregiver, as a relative as a professional, may find their job difficult through the *concomitance* of COVID-19 pandemic.

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 [5]. With the Severe Acute Respiratory Syndrome (SARS-CoV-2) pandemic, the number of deaths has increased worldwide [6].

Globally, more than 50 million people have dementia, and a new case occurs every 3 seconds [7]. Dementia is a pandemic in our increasingly aging population [8].

The union of the two pandemics has created great concern for people suffering from dementia and their relatives or caregivers [9]. A new environment can lead to increased stress and behavioural problems [10].

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.

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

Infection control

The most important thing to do is to practice good general infection control measures, including proper and frequent hand washing, as well as 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 practice safe hygiene. When caring for someone with COVID-19, hygiene standards [11] must be met to prevent contagion and therefore its possible spread [12].

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 get in touch with the recipient's blood, feces or bodily fluids, such as saliva, sputum, nasal mucus, and urine. Put on the mask before entering patient's home.

When removing the PPE, the gloves must be removed and discarded (do not reuse them). Then, washing the hands with the use of soap and water or hand sanitizer with alcohol. Next remove the mask and discarding it, immediately wash hands again. 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 really 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 behavior 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? and how to explain the needs and social distancing? This depends on the exact condition of the person [12]. You should speak to a family member or patient about the pandemic in a way that he can understand according to sick's state.

It is important to know if 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 sharing many details of something difficult to understand.

A person with moderate dementia can still clearly remember his youth. The first and old memories for 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 other. Although today is not the same there may be parallelism.

Know the emotional state

Since the rules of social distancing and isolation can make more difficult to be with important persons for your own, family members and/or 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 important to keep the environment calm and to have a plan for mediations or strategies to help situations in case the patient or behavior becomes too difficult to handle. Caregivers does not hesitate to ask for help if they feel overflowed. And at a time when people undergo more stress and anxiety as well, they suffer a loss of daily routine, it is important to think of yourself and recognize what takes to get your job well done. This can be to take a snack, read newspaper, going for a walk (where allowed by law), taking a nap, etc.

Preserve routines

Day-to-day life of a person with AD always results easier 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 centers, 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 maintain good physical condition in cared person, along with

cognitive stimulation. These measures help to maintain autonomy as long as possible. It is convenient people with dementia keep the maximum cognitive activity dependence on the person's ability. People who care this kind of patients can carry out psychostimulation activities programs (cognitive exercises, board games, reading newspapers, crossword puzzles and other tasks). And, 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). And be busy and supervised with crafts, small house responsibilities, taking care plants or pets. Of course, 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 smart phones, to keep patients in contact with their loved ones, friends, etc. For example, to teach as far as possible, according to the state of the disease and the use of this 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 [13,14]. Absolutely new for your brain and competing with the loss of neurons, synapses and circuits that occur in AD.

Take care of 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 relax, try to have small spaces for themselves and looking for strategies to manage anxiety [9]. 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. 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.

Acknowledgements: None.

Funding: This work is partially funded by UNIR Research ([http:// research.unir.net](http://research.unir.net)), Universidad Internacional de La Rioja (UNIR, <http://www.unir.net>).es.

Authorship contribution: All authors have contributed equally.

Competing interests: The authors have completed the Unified Competing Interest form at www.icmje.org/coi_disclosure.pdf (available upon request from the corresponding author), and declare no conflicts of interest.

REFERENCES

- [1] Zhou F, Yu T, Du R, Fan G, Liu Y, Liu Z, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet*. 2020;395:1054–62.
- [2] Applegate WB, Ouslander JG. COVID-19 Presents High Risk to Older Persons. *J Am Geriatr Soc*. 2020;68:681.

- [3] Coughlin SS. Anxiety and depression: linkages with viral diseases. *Public Health Rev.* 2012;34:1–17.
- [4] Parra MA, Butler S, McGeown WJ, Nicholls LAB, Robertson DJ. Globalising strategies to meet global challenges: The case of ageing and dementia. *J Glob Health* 2019;9:020310.
- [5] Esposito L. How Coronavirus Affects Older Adults. *US News* 2020. Available: <https://health.usnews.com/conditions/articles/how-coronavirus-affects-older-adults>. Accessed: 26 April 2020.
- [6] Wang H, Li T, Barbarino P, Gauthier S, Brodaty H, Molinuevo JL, et al. Dementia care during COVID-19. *Lancet* 2020;395:1190–1.
- [7] Alzheimer’s Disease International. *World Alzheimer Report 2019 Attitudes to dementia* 2019:1–12.
- [8] Fox NC, Petersen RC. The G8 Dementia Research Summit-a starter for eight? *Lancet* 2013;382:1968–9.
- [9] The Lancet. COVID-19: protecting health-care workers. *Lancet* 2020;395:922.
- [10] 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;31:83–90.
- [11] World Health Organization. *Coronavirus disease 2019*. 2020. Available: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>. Accessed: 26 April 2020.
- [12] Weiss C. Science Saturday: More COVID-19 cases, take common sense precautions. *Mayo Clin News*. 2020. Available: <https://newsnetwork.mayoclinic.org/discussion/science-saturday-more-covid-19-cases-take-precautions//> Accessed: 26 April 2020.

[13] Greenwood PM, Parasuraman R. Neuronal and cognitive plasticity: A neurocognitive framework for ameliorating cognitive aging. *Front Aging Neurosci* 2010;2

[14] Bergland C. How Do Neuroplasticity and Neurogenesis Rewire Your Brain? *Psychol Today* 2017. Available: <https://www.psychologytoday.com/us/blog/the-athletes-way/201702/how-do-neuroplasticity-and-neurogenesis-rewire-your-brain>. Accessed: 26 April 2020.

Correspondence to:

Marcos Altable

Sargento Mena Street 4, 51001

Ceuta

Spain

maraltable@gmail.com