Living with dementia in a virtual world: hope for the future

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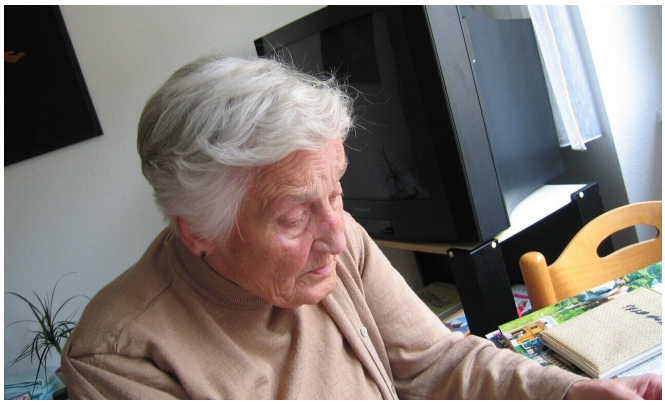

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With much of the U.K. just emerging from its second coronavirus 'lockdown' into new tiers, the amount of social contact we are able to have is still limited. Among the worst affected are people living in the country's care homes, 70% of whom have dementia. A recent report in The Lancet identified 12 risk factors for dementia and named social contact as an important defence against a decline in cognitive function as we get older.

The Lancet report states that engaging in frequent social contact helps to increase and maintain 'cognitive reserve' – a measure of a person's resilience to decline in thinking skills. This is because socialising stimulates the brain by challenging it to process lots of information simultaneously.

Conversely, research has shown that social isolation results in an increased rate of deterioration of symptoms among people with dementia. According to the Office for National Statistics, during the first lockdown in April there was an 80% increase in deaths due to dementia, even aside from COVID-19. It is therefore more vital than ever to keep in touch with people with dementia. Doing so will help to alleviate isolation and may slow the progression of the dementia itself.

The introduction of social distancing has restricted much of our social contact to virtual platforms—especially for people with dementia, many of whom fall into a vulnerable category. This transition online has benefits and drawbacks, and opinion is mixed as to whether digital forms of communication are an adequate substitute for face-to-face contact. On one hand, many people with dementia may struggle to access and use this technology, or to detect the usual non-verbal cues many rely on in communicating with others. On the other hand, virtual platforms open up a huge range of support services that may not be available locally—including, for example, resources in other languages.

With an estimated 850,000 people living with dementia in the UK—and at least 50 million worldwide—efforts to find new treatments and preventive strategies have never been more urgent. There is currently no 'cure' for dementia—an often-misunderstood term that describes a group of symptoms associated with and caused by conditions such as Alzheimer's disease, Parkinson's or vascular disease (to name just a few). The field is well known for its failed drug trials.

One organisation working to make much-needed breakthroughs in dementia is Dementias Platform UK (DPUK). Based in Oxford University's Department of Psychiatry, DPUK was set up to accelerate progress in dementia research.

Professor John Gallacher is Director of DPUK and Professor of Cognitive Health at Oxford. He says: "Dementia is certainly one of the biggest public health challenges facing us globally in the 21st century. When we eventually deal with COVID-19, dementia will still be here in its many forms—and we've seen during this pandemic how deeply people with dementia and those who care for them

have been affected.

"But I'm optimistic about the future of dementia research. I believe that within the next five to ten years we will have disease-modifying treatments that will improve people's lives. I'm more cautious about using the term "cure"—but treatments to delay the onset or slow the progression of dementia, yes."

DPUK's work focuses on better understanding the complexities of dementia in humans. There are three main strands to this work:

- a Data Portal giving researchers access to huge amounts of population health information—critical in helping identify the earliest signs and determinants of disease;
- a package of experimental medicine studies aiming to shed light on the root causes of dementia, such as what triggers inflammation in the brain;
- a 'trials delivery framework' that will help match public volunteers to the right dementia trials and studies, ensuring we can quickly understand what works (and what doesn't).

Professor Gallacher says: "One of DPUK's most important contributions to dementia research is the vast quantity of data it makes available to researchers so we can explore the varied causes of dementia and get a much more complete picture of why some people degenerate faster than others.

"History shows us that individual specialties working independently will not bring the solution. We have lots of weapons in the fight against dementia: genetic information, brain imaging, stem cell technology, survey data and more. By bringing it all together and working collaboratively we will maximise our chances of success."

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