

Rowan University

Rowan Digital Works

Stratford Campus Research Day

25th Annual Research Day

May 6th, 12:00 AM

Alzheimer's Patients' Mental Health during the COVID 19 Pandemic

Maryanna Schweininger
Rowan University

Yvonne Maduka
Rowan University

Ajh'Shana Collins
Rowan University

Follow this and additional works at: https://rdw.rowan.edu/stratford_research_day



Part of the [Geriatrics Commons](#), [Nervous System Diseases Commons](#), [Psychiatric and Mental Health Commons](#), and the [Psychiatry Commons](#)

Let us know how access to this document benefits you - share your thoughts on our [feedback form](#).

Schweininger, Maryanna; Maduka, Yvonne; and Collins, Ajh'Shana, "Alzheimer's Patients' Mental Health during the COVID 19 Pandemic" (2021). *Stratford Campus Research Day*. 10.
https://rdw.rowan.edu/stratford_research_day/2021/may6/10

This Poster is brought to you for free and open access by the Conferences, Events, and Symposia at Rowan Digital Works. It has been accepted for inclusion in Stratford Campus Research Day by an authorized administrator of Rowan Digital Works.

Introduction

Alzheimer's disease (AD) is a degenerative brain disease caused by β -Amyloid plaques and neurofibrillary tangles, which results in memory loss and cognitive decline. It is the sixth leading cause of death in the United States.¹ Approximately 50% of those with AD experience some degree of depression during the course of the disease, which has been shown to accelerate functional decline, institutionalization, and even mortality.^{2,3,4}

Many who cannot care for themselves live in an assisted living facility or retirement home. Since the beginning of the COVID-19 pandemic, people have been urged to social distance in order to decrease the spread of the virus. In an effort to limit the spread of COVID-19 many facilities have prohibited any outside visitations and, in some cases, even limited physical interactions between the residents. Due to these social distancing orders, residents in assisted living facilities have been unable to see their families. As AD causes memory loss, there may be confusion around why families cannot visit.

This isolation has caused an increase in depression and anxiety rates among people with AD.⁵

Methods

A review of relevant studies was conducted using PubMed. The search terms used include:

- ❖ "Alzheimer's disease" and "dementia" and "cervical cancer" and "depression" and "anxiety" and "hallucinations" and "COVID-19" and "pandemic" and "games" and "brain stimulating games"

Discussion

❖ There is evidence that stimulating cognitive activity may delay or decrease the risk of developing AD.⁶

❖ High level complex mental activities have been linked to reduced rate of hippocampal atrophy and prevention or slowing of β -amyloid deposition.^{7,8}

❖ Cognitively stimulating activities, such as puzzles and crosswords, can help improve cognitive function.^{9,10}

❖ A study with participants clinically diagnosed with AD and live in retirement homes were assessed for depression and anxiety, which illustrated that participants had higher depression rates during the COVID-19 pandemic (M=14.21, SD - 3.17) compared to before (M = 12.34, SD = 4.10) the pandemic (Z = -2.84, p = .005).⁵

Proposed Intervention & Conclusion

- ❖ As a proposed intervention to combat the negative impact of COVID-19 pandemic on mental health, we have partnered with Juniper Village Assisted Living Facility in Williamstown, NJ. Each week we meet with the residents via Webex to play cognitively stimulating games, such as *Trivia*, *Wheel of Fortune*, *Deal or No Deal*, and *Head to Head - Friendly Feud*.
- ❖ Consistently playing games stimulates cognitive thinking and memory, helping to slow the progression of AD. Moreover, this social interaction improves mental health, which will also help to delay the progression of their AD.³
- ❖ We recommend recreation departments of assisted living facilities connect with volunteers and family members on virtual platforms as a method of maintaining social interactions and cognitive stimulation for residents.

Acknowledgements & Contact

We would like to express our gratitude to Mary Duggan, MA and MD Fateha, OMS-III for their guidance and help.

Maryanna Schweininger, BA: schwei54@rowan.edu

References

1. Kochanek KD, Xu JQ, Arias E. Mortality in the United States, 2019. NCHS Data Brief, no 395. Hyattsville, MD: National Center for Health Statistics. 2020.
2. Starkstein, S.E., Jorge, R., Mizrahi, R., Robinson, R.G., 2005. The construct of minor and major depression in Alzheimer's disease. *Am. J. Psychiatry* 162 (11), 2086–2093.
3. Lyketsos, C.G., Olin, J., 2002. Depression in Alzheimer's disease: overview and treatment. *Biol. Psychiatry* 52 (3), 243–252.
4. Gaugler, J.E., Yu, F., Krichbaum, K., Wyman, J.F., 2009. Predictors of nursing home admission for persons with dementia. *Med. Care* 47 (2), 191–198.
5. El Haj M, Altintas E, Chapelet G, Kapogiannis D, Gallouj K. High depression and anxiety in people with Alzheimer's disease living in retirement homes during the covid-19 crisis. *Psychiatry Res.* 2020 Sep;291:113294.
6. Anderson K, Grossberg G.T. 2014. Brain Games to Slow Cognitive Decline in Alzheimer's Disease. *JAMDA. Division of Geriatric Psychiatry, Department of Neurology and Psychiatry, Saint Louis University School of Medicine.* 536-537.
7. Valenzuela M.J., Sachdev P., Wen W., et. al.: Lifespan mental activity predicts diminished rate of hippocampal atrophy. *PLoS ONE* 2008; 3: pp. E2598.
8. Landau S.M., Marks S.M., Mormino E.C., et. al.: Association of lifetime cognitive engagement and low β -amyloid deposition. *Arch Neurol* 2012; 69: pp. 623-629.
9. Brooker H, Wesnes KA, Ballard C, Hampshire A, Aarsland D, Khan Z, Stenton R, Megalogeni M, Corbett A. The relationship between the frequency of number-puzzle use and baseline cognitive function in a large online sample of adults aged 50 and over. *Int J Geriatr Psychiatry.* 2019 Jul;34(7):932-940.
10. Rebok GW, Carlson MC, Langbaum JB. Training and maintaining memory abilities in healthy older adults: traditional and novel approaches. *J Gerontol B Psychol Sci Soc Sci.* 2007 Jun;62 Spec No 1:53-61.