

**THE INTERSECTION OF CULTURE, DISABILITY,
AND COGNITIVE FUNCTIONING AMONG
HISPANIC OLDER ADULTS WITH SENSORY
IMPAIRMENTS
FOR THE UTAH COMMISSION ON AGING**

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**WE HAVE NO CONFLICTS OF
INTEREST TO DISCLOSE**

Thank you

- Dr. Josh Ehrlich, Dr. Markus Wettstein, Dr. Brian Stagg, Dr. Kyriakos Markides. Dr. Alisha Redelfs, Dr. Melanie Serrao-Hill, and Dr. Jeremy B. Yorgason
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Outline

- Briefly introduce prevalence and significance of sensory impairments, social isolation and cognitive functioning
- Introduce paper on the role of social isolation
- Introduce information about special needs and considerations- Hispanic Older adults
- Creation of new culturally sensitive measure of social isolation
- Discussion and Implications

Introduction to Sensory Impairments

- 9% of adults 65 and older experience vision impairment (Patel et al., 2020)
- 31% of adults 60-69 experience hearing impairment (Goman & Lin, 2016)
- 61% of adults 70 and older experience hearing impairment (Goman & Lin, 2016)

Introduction to Sensory Impairments and Cognitive Functioning Cont.

- Vision impairment, hearing impairment, and dual sensory impairment are independently associated with cognitive impairment (Lin & Albert, 2014; Whitson et al., 2018; Zheng et al., 2018)
- Sensory Impairment → Social Isolation → Cognitive Decline

The Longitudinal Association of Late-Life Visual and Hearing Difficulty and Cognitive Function: The Role of Social Isolation

Jeremy B. Yorgason, PhD , Corinna Trujillo Tanner, PhD, RN, MSN, Stephanie Richardson, BA, Melanie M.Y. Serrao Hill, PhD, Brian Stagg, MD, MPH, Markus Wettstein, PhD, Joshua R. Ehrlich, MD, MPH [Show less](#) ^

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Shifting Demographics

- 2019 US Hispanic population: 60.6 million (20% increase from 2010) (U.S. Census Report, 2020)
- 118 million: projected 2060 US Hispanics population, 28% of total population (Noe-Bustamante et al., 2020)
- 1960, there were 6.3 million Hispanics living in the U.S. (0.9 foreign born, 5.4 U.S. born) (Flores, 2017)

Shifting Demographics Cont.

- Median age of Hispanics in the country is rapidly increasing (Noe-Bustamante et al., 2020)
- Between 2018 and 2040, the older adult Hispanic population is expected to increase 175% (ACL 2019)

Prevalence and Impact of Sensory Impairments Among Hispanic Older Adults: Vision

- Driven by healthcare disparities in the screening and treatment for diabetes, glaucoma and cataracts (Hererra et al., 2016)
- Access to refractive correction: 64% need, 20% of those lack access (associated with lower levels of acculturation, lower education and no insurance) (Uribe et al., 2011)

Prevalence and Impact of Sensory Disabilities Among Hispanic Older Adults: Vision, Cont.

- Less access to screening: 63% of participants with vision disability in Los Angeles Latino Eye Study had not been diagnosed or sought treatment prior to the study (Varma et al., 2004)
- NHATS Round 1: 9% of Non-Hispanic Whites, 19% of Hispanics had vision disability

Impact and Prevalence of Sensory Disabilities: Hearing

- In GP similar rates as Non-Hispanic Whites (31% age 60-69, 63% age 70+) (Goman & Lin, 2016)
- NHATS Round 1: 16% of Non-Hispanic Whites, 22% of Hispanics had HD
- Live a greater proportion of life hearing impaired (West & Scott, 2021)
- Less access to hearing aids (Arnold et al, 2019)

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PRELIMINARY RESULTS
SHOWED HIGH LEVELS OF
SOCIAL ISOLATION AMONG
HISPANIC OLDER ADULTS
WITH SENSORY
IMPAIRMENTS



Familism (Familismo)

- Cultural ideology which prioritizes the needs of the family
- A reliance on family for support



Another important consideration: Multi-generational households



Family Networks

- In 2017, 27% of Hispanic households were multigenerational (at least two adult generations or grandparents with grandchildren under the age of 25)
- Comparatively, in 2017 16% of non-Hispanic white households were multigenerational (Cohn & Passel, 2018)
- Approx. 50% of foreign born Hispanics live in multigenerational homes (Rieger, 2017)

Original measure of Social Isolation (Cudjoe et al., 2020)

- Lives alone
- In the last Year: one or fewer people who he/she talked to about important things
- In the last month: attended religious services
- **In the last month: participated in clubs, classes, or other organized activities**
- **In the last month: did volunteer work**

Marín & Marín, 1991, p. 66

“These measures reflect the culturally based world view of those individuals doing the research, including their perceptions, norms, values, and biases.”

We must build our research on the concepts that reflect the experience of the research participants

Adjusted measure: Family Support

- Lives alone
- In the last Year: one or fewer people who he/she talked to about important things
- In the last month: attended religious services
- **In the last month: visited in person with friends or family not living with him/her, either at his/her home or theirs**
- **Lives in an intergenerational household (40% Hispanic vs 19% Non-Hispanic White)**

Article Contents

Abstract

Method

Results

Discussion

Conclusion

Supplementary Material


Acknowledgments

Funding

Conflict of Interest

CORRECTED PROOF

Sensory Disabilities and Social Isolation Among Hispanic Older Adults: Toward Culturally Sensitive Measurement of Social Isolation

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Implications

- **There are strong associations between sensory impairments and cognitive functioning**
- **Social isolation caused by sensory impairments may partially explain changes in cognitive functioning among older adults with sensory impairments**
- **Older Hispanics who lack family connections may be at significantly increased risk of social isolation and its negative outcomes because their social needs are likely met in family networks rather than in community activities**



References

- Administration for Community Living. (2020, May). *2019 Profile of Americans*. ACL.gov. Retrieved from https://acl.gov/sites/default/files/Profile%20of%20OA/2020ProfileOlderAmericans_RevisedFinal.pdf
- Administration for Community Living. (2021, May). *2020 Profile of Americans*. ACL.gov. Retrieved from https://acl.gov/sites/default/files/Profile%20of%20OA/2020ProfileOlderAmericans_RevisedFinal.pdf
- Arnold, M. L., Hyer, K., Small, B. J., Chisolm, T., Saunders, G. H., McEvoy, C. L., Lee, D. J., Dhar, S., & Bainbridge, K. E. (2019). Hearing aid prevalence and factors related to use among older adults from the Hispanic Community Health Study/Study of Latinos. *JAMA Otolaryngology—Head and Neck Surgery*, 145, 501–508. doi:10.1001/jamaoto.2019.0433
- Cohn, D., & Passel, J. S. (2018). *A record 64 million Americans live in multigenerational households*. <https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-inmultigenerational-households/>
- Flores, A. (2017). *2015, Hispanic population in the United States statistical portrait*. Pew Research Center's Hispanic Trends Project. Retrieved from <https://www.pewresearch.org/hispanic/2017/09/18/2015-statistical-information-on-hispanics-in-united-states/>
- Goman, A. M., & Lin, F. R. (2016). Prevalence of hearing loss by severity in the United States. *American Journal of Public Health*, 106, 1820–1822. doi:10.2105/AJPH.2016.303299
- Herren, D. J., & Kohanim, S. (2016). Disparities in vision loss due to cataracts in Hispanic women in the United States. *Seminars in Ophthalmology*, 31(4), 353–357. doi:10.3109/08820538.2016.1154166
- Marín, G., & Marín, B. V. (1991). *Research with Hispanic populations*. Sage. doi:10.4135/9781412985734
- Noe-Bustamante, L., Lopez, M. H., & Krogstad, J. M. (2020, July 7). *U.S. Hispanic population surpassed 60 million in 2019, but growth has slowed*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2020/07/07/u-s-hispanic-populationsurpassed-60-million-in-2019-but-growth-has-slowed/>
- Rieger, S. (2017, March 9). *The continued growth of multigenerational living*. Joint Center for Housing Studies of Harvard University. <https://www.jchs.harvard.edu/blog/the-continued-growth-of-multigenerational-living#:~:text=More%20than%2025%20percent%20of,all%20three%20of%20these%20groups>
- Trujillo Tanner, C., Yorgason, J., Richardson, S., White, A., Redelfs, A., Stagg, B., Erlich, J., & Markides, K. (2022). Sensory difficulties and social isolation among Hispanic older adults: Toward culturally sensitive measurement of social isolation. *Journals of Gerontology: Series B* (pre-published online) <https://doi.org/10.1093/geronb/gbac001>
- United States Census Bureau. (2020, June 25). 65 and older population grows rapidly as Baby Boomers age. <https://www.census.gov/newsroom/press-releases/2020/65-older-population-grows.html>
- Uribe, J. A., Swenor, B. K., Muñoz, B. E., & West, S. K. (2011). Uncorrected refractive error in a Latino population: Proyecto VER. *Ophthalmology*, 118(5), 805–811. doi:10.1016/j.ophtha.2010.09.015
- Yorgason, J., Trujillo Tanner, C., Richardson, S., Serrao Hill, M., Stagg, A., Wettstein, M., & Ehrlich, J. (2022). The longitudinal association of late-life visual and hearing difficulty and cognitive function: The role of social isolation *Journal of Aging and Health*, Sage Publications (pre-published online) <https://doi.org/10.1177%2F08982643211063338>