

The Relationship Between Loneliness and Quality of Life in Older Adults

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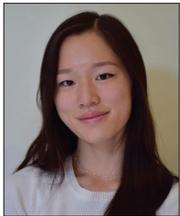
Background: Loneliness is the self-perceived discrepancy in an individual's desired and actual social relationships. Loneliness is common among older adults and is associated with chronic illness and poorer mental health outcomes. Our objective was to determine the relationship between loneliness and quality of life (QOL) in older adult patients, controlling for depression and anxiety.

Methods: Secondary data analysis was conducted on baseline data from the Caregiver Outcomes of Alzheimer's Disease Screening (COADS) Trial, an ongoing trial evaluating benefits and risks of Alzheimer's disease and related dementias (ADRD) screening. Patients were ≥ 65 years old with no history of ADRD. Measures include the 5-item NIH Toolbox Loneliness measure, QOL, measured by the physical (PCS) and mental health component (MCS) scores of SF-36, and depression and anxiety, measured by PHQ-9 and GAD-7, respectively. We conducted a Spearman correlation and ran unadjusted and adjusted linear

regression models to assess the relationship between loneliness and QOL.

Results: Patient mean (SD) age was 73.7 (5.1) years; 44.8% male; 91.5% white; 7.5% black. We found that loneliness was moderately correlated with QOL measured by SF-36 MCS ($r = -0.43$, $p < 0.001$), anxiety ($r = 0.44$, $p < 0.001$), and depression ($r = 0.42$, $p < 0.001$), while weakly correlated with QOL measured by SF-36 PCS ($r = -0.15$, $p < 0.001$). Loneliness was associated with lower MCS ($p < 0.001$) and PCS ($p < 0.001$). After adjusting for depression and anxiety, only MCS ($p < 0.001$) was reduced by loneliness. Additionally, we found a positive association between PCS and patient report of comfortable level of income, before ($p = 0.002$) and after ($p = 0.002$) adjustment.

Conclusion: We found that loneliness was significantly associated with worse quality of life as measured by mental health constructs among older adult primary care patients. Therefore, we recommend primary care providers assess loneliness with their older adult patients and if present, consider interventions aimed at reducing loneliness such as activities that maintain meaningful social relationships.



General Excellence Award

Claudia Li (she/her) is a third-year medical student, who is currently interested in neurology and psychiatry.

"My past research experiences were rooted in basic science, so I was excited about this opportunity to learn something new and explore what goes into health outcomes research. Being involved in this project gave me valuable insight into the topic of mental health in older adults and some of the unique challenges that impact this population. I have thoroughly enjoyed working with such a welcoming team and appreciate their guidance and mentorship."

Relationships Between Health Behaviors, Social Determinants of Health, and Patient Demographics in an Urban Northwest Indiana Hospital

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Background: Social determinants of health (SDOH) contribute to over 50% of health outcomes and inequities. Healthcare institutions are increasingly implementing SDOH screenings and referrals. St. Mary Medical Center (SMMC) in Northwest Indiana was the first acute care hospital to implement a comprehensive SDOH pilot screening and referral program in Indiana using the validated Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE). This study is part of a three-phased Community-Based Participatory Research (CBPR) partnership between IUSM-NW and SMMC to examine and address SDOH within SMMC's service area from January 2022-January 2025. This study's research question is: What are the relationships between SDOH, behavioral, and demographic factors in SMMC's inpatients?

Methods: This descriptive study analyzed a limited dataset generated by SMMC from EPIC™ with SDOH, demographic, behavioral (tobacco use, alcohol use,

physical activity), and health outcomes data for adult inpatient visits from January 2021 to June 2022. Data analysis was conducted in SPSS 28.0 using descriptive statistics (i.e., frequencies and central tendency) and tests of association including Chi-square, Fisher's Exact, Wilcoxon-Mann Whitney, and Kruskal Wallis H ($p < 0.05$). This study was exempted by Indiana University Human Research Protection Program (IRB # 14040).

Results: This study included 4370 inpatients, who were predominantly White (75.7%), older adults (65 ± 24), and publicly insured (76.3%). There were significant relationships between SDOH and tobacco use, alcohol use, and physical activity. Tobacco use was significantly associated with the majority of SDOH including insurance type ($p < .001$), housing risk ($p < .001$), financial resource risk ($p < .001$), unmet transportation needs ($p < .001$), and overall social risk ($p = .012$).

Conclusions: Understanding how SDOH influence health behaviors will inform efforts to develop, implement, and evaluate multi-level interventions. The next phases of this CBPR will use advanced statistical techniques to further explore these relationships, evaluate SMMC's pilot program, and co-develop SDOH interventions.



General Excellence Award

Sydnye Nosbusch (she/her/hers) is a third-year medical student, who is currently interested in OBGYN and women's health.

"Being able to participate in research addressing social determinants of health, particularly in Northwest Indiana where I grew up, was the most rewarding part about this summer. I've enjoyed learning more about the patients that IU serves and the multifaceted aspects of health and well-being."