

Research Statement

I am an interdisciplinary aging scholar committed to advancing health equity, improving the well-being of older adults living with dementia, and supporting their care partners. My research trajectory is shaped by my personal experience as a former dementia caregiver, my interdisciplinary training in social work and public health, and clinical experience supporting underserved older adults. With nearly 14 million Americans projected to be living with dementia by 2060 and about 80% of older adults with dementia residing in community settings rather than in long-term care facilities, families, communities, and our healthcare system face profound and growing challenges. My research addresses an urgent and critical question: How can we transform neighborhood environments into powerful engines of support that enable older people with dementia to age in place, support their care partners, foster social connections, and reduce health disparities? Specifically, my program of research aims to: (1) identify the psychosocial challenges (e.g., loneliness and social isolation) faced by community-dwelling older people with dementia; (2) understand how neighborhood environments influence later-life cognition and psychosocial well-being; and (3) develop innovative and culturally responsive interventions to support the physical, psychosocial, and cognitive well-being of older adults, including those living with dementia and their care partners.

My research has produced multiple peer-reviewed publications in leading journals across dementia care, gerontology, and aging research that advance our understanding of dementia caregiving, psychosocial well-being, health disparities, and healthy aging. My early scholarship has collectively established the foundation for my independent program of research. For example, I led a systematic review that synthesized empirical evidence on the characteristics, factors, and strategies related to care partner engagement in fall prevention programs for older people with dementia (Zeng *et al.*, 2025). I also collaborated on the development of a process model for multidisciplinary health professionals to engage dementia care partners in fall risk management (Zhou, Zeng, *et al.*, 2026). Beyond dementia caregiving, I have collaborated on projects examining culturally and linguistically appropriate recruitment strategies and assessment tools for dementia evaluation among racially/ethnically diverse older adults, the influence of intersecting identities (e.g., race/ethnicity, gender, and other social determinants) on older adults' well-being, as well as digital health engagement and everyday technology use among older adults. These publications demonstrate how individual, relational, social, and structural factors impact the health and well-being of diverse older adults and highlight opportunities for more equitable dementia care.

Building on my broad research on older adults in general and their physical, mental, and cognitive well-being, I have developed a particular interest in examining the relationships between psychosocial well-being and everyday neighborhood environments among community-dwelling older adults with cognitive impairment or dementia and their care partners. In my first two years of doctoral training, I secured competitive funding and completed a community-engaged research project as a Principal Investigator. In this project, I conducted semi-structured interviews with 24 community-dwelling older adults (14 with cognitive impairment or dementia and 10 care partners) in the Greater Austin area. Leveraging insights from both older people with dementia and their care partners, the project resulted in three key contributions. First, findings revealed distinct constructs for how loneliness (e.g., a perceived loss of intelligence, a loss of purpose) and social isolation (e.g., a disconnection from one's inner self and the environment, being physically confined or separated) were perceived and experienced in the contexts of dementia, which will offer insights into the development of sensitive measures of loneliness and social isolation in dementia. Second, the study highlighted challenges for older people with dementia experience with regard to staying socially connected, from both their own experience (e.g., negative self-perceptions, difficulties with transition post diagnosis) and care partners' (e.g., lack of social support, lack of understanding about dementia and caregiving). Guided by the resilience framework, I mapped these challenges onto strategies employed by older people with dementia (e.g., building routines, using memory strategies) and care partners (e.g., improving caregiving knowledge and skills, increasing social support). These findings will inform the development of tailored support programs to reduce loneliness and social isolation among older people with dementia. Third, on the neighborhood level, the study identified facilitators and barriers to social connectedness across six domains, including: safety, access to health and social services, social capital (e.g., neighborhood social cohesion and inclusion), community and faith-based organizations, transportation, and familiarity and stability. The findings highlight multiple opportunities for modifying neighborhood environments to promote social connectedness among

older people with dementia. The preliminary findings have been presented at national gerontological conferences and to local community members, and manuscripts are currently in preparation.

Building on these qualitative findings, I conducted a scoping review (Zeng *et al.*, *under review*) synthesizing emerging evidence on the associations between neighborhood environments and psychosocial well-being among older people with dementia as well as neighborhood-based interventions. Drawing on evidence from 27 empirical studies, the review identified four ways in which neighborhood environments are associated with psychosocial well-being: (1) features of the neighborhood built and social environments; (2) relationships with people and places; (3) engagement and participation in neighborhood activities; and (4) coping and making self-adjustments. However, the review also revealed conceptual and measurement challenges related to “neighborhood” and “psychosocial well-being,” including how the neighborhood environment should be conceptualized and measured in dementia research and which domains of psychosocial well-being are most important for older people with dementia. The review also identified a lack of large-scale, longitudinal, and interventional studies that explicitly target neighborhood environments to promote the psychosocial well-being of older people with dementia, highlighting the need for innovative, multi-level, and participatory approaches to better understand how neighborhood environments can support older people with dementia and their care partners.

To address the abovementioned gaps, my dissertation study uses data from the nationally representative Health and Retirement Study to conduct large-scale analyses of perceived neighborhood environments and psychosocial well-being among older adults with varying cognitive statuses. In this study, I aim to: (1) identify the mechanisms through which perceived neighborhood features (i.e., physical disorder, social cohesion) is associated with specific dimensions of psychosocial well-being (i.e., social health, psychological well-being); and (2) examine pathways linking these aspects and identify potential modifiable factors (e.g., social participation, mastery) that can serve as targets for neighborhood-level interventions. The findings from this work will provide empirical evidence to inform targeted age-friendly and dementia-friendly community strategies that support older adults in aging well within their communities.

Parallel with this work, I am leading a newly funded Photovoice project that engages older adult with dementia–care partner dyads to document and interpret neighborhood experiences through participant-generated visual narratives, with the goal of understanding how neighborhoods shape their own and relational well-being. Following principles of community-based participatory arts research, I will also engage key community stakeholders (e.g., aging service providers, neurotypical older adults) to co-produce knowledge, identify neighborhood and psychosocial factors that prior literature may have overlooked, and identify modifiable targets and strategies that are most feasible and relevant for future intervention development.

These lines of research have established the conceptual and methodological foundation for my next step of developing a sustainable program of research focused on designing community-based and neighborhood-engaged interventions to improve the well-being of older people with dementia, support care partners, and reduce health disparities. My collaborative, interdisciplinary research examining how care partners engage in health promotion programs, navigate systemic challenges, and access culturally and digitally adapted resources has well positioned me to lead intervention development. For example, my work on developing culturally responsive practices for healthcare professionals to support Chinese American dementia caregivers in decision-making around end-of-life feeding options (Zeng *et al.*, *under review*) has prepared me for designing interventions that are feasible, culturally responsive, and equitable.

My long-term goal is to lead an externally funded program of research that develops, evaluates, and scales innovative interventions to build inclusive and supportive age-friendly neighborhoods. I will strive to secure funding by writing grants from federal, local, private, and other funding mechanisms to support my program of research. I envision partnering with older people living with and without dementia, care partners, community organizations, healthcare systems, and interdisciplinary collaborators to co-design multilevel interventions that integrate neighborhood environments, community engagement, as well as health and social care services to support aging in place. Ultimately, I seek to shift dementia care from clinic-centered models to community-rooted systems, so that all older people, regardless of cognitive ability or social identity, can age with dignity, connection, and purpose in supportive communities.