

P-04 | Design for Healthy and Active Aging: Understanding Physical Activity, Social Activity, and Fall Prevention in Long-term Care Facilities



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BACKGROUND AND PURPOSE. Long-term care facilities (LCFs) are essential healthcare and residential environments for the growing number of older adults. Physical activities (PA), social activities (SA), and fall prevention are priorities in LCFs that can influence residents' physical, social, and mental health. This study examines (1) how LCFs' physical and social environments affect residents' PA, SA, and fall safety; (2) the relationship between LCF residents' PA, SA, and falls; and (3) gaps in current practices and evidence-based design solutions to inform future design of LCFs.

METHODS. A facility manager survey was distributed to LCFs in 12 states in the U.S. to collect information about their facility's current status and desired environmental solutions related to residents' PA, SA, and fall safety. Linear regressions were used to predict the three outcomes (N=267); structural equation models will be used to explore direct and indirect relationships among variables.

RESULTS. Our findings revealed the spatial and temporal patterns of residents' PA, SA, and falls. The mean percentage of residents with at least one fall last month was 7.41%. The fall risk was the highest when residents got in and out of bed, used toilets, and got in and out of a seat in their room, followed by when distracted while walking and during showers. The top locations for SA in LCFs were central dining areas, covered outdoor seating areas, activity rooms, lounge areas, and main lobbies. Walking was a popular form of PA, with over half the residents walking at least 5-6 days per week for exercise. Linear regressions showed a greater variety of outdoor spaces, the provision of music/art activities, and family-style meal services increased walking. An improved indoor environment and more activity programs were associated with increased SA. A higher percentage of residents walking with assistance and the presence of an activity room are associated with more falls, likely because these residents needing assistance had a higher risk for falls. Further analyses using the structural equation models will enhance understanding of the relationship between PA, SA, and falls.

CONCLUSIONS. Input from key stakeholders provided a better understanding of LCF residents' health behavior and fall safety as related to the facility environment. As suggested by the ecological model of aging, the person-environment fit is a key to aging-friendly design. The design of LCFs should balance the promotion of PA and SA and the mitigation of fall risks to support healthy and active aging.