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Health and Housing in an Aging Population: Identifying Risk Factors of Seniors Living Independently

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RESULTS

BACKGROUND

Aging is associated with numerous risk factors for declining physical and mental health. As a result, many elder individuals are forced to relocate to nursing homes, assisted living centers or just closer to adequate medical facilities. Studies have shown:

• Relocation of elders is associated with depression, anxiety, memory loss, and decreased social adjustment and life satisfaction.
• Persistently lonely people exhibit a 2-fold greater risk for developing Alzheimer’s disease (AD) than those who are not chronically lonely.
• Increased social interaction improves cognitive function in individuals with AD.

By helping seniors to age in place, many of the deleterious risks of relocation, such as social isolation, depression, and cognitive decline could be avoided. In addition to relocation, other risk factors that affect cognition have been identified:

• Physical activity is associated with higher cognitive functioning in elders.
• Polypharmacy is a risk factor for impaired cognition.

Thus, simple modifications that allow seniors to age in place may reduce morbidity and enhance quality of life. Cathedral Square Corporation (CSC) is a non-profit organization whose mission is to develop, manage, and own housing that provides community services to promote the health and well-being of elders, low income persons, and persons with disabilities.

Subjects: 115 elder residents (98 female, 17 male) in independent senior housing

METHODS

Cathedral Square Sites (sample size): Heineberg Senior Housing (n = 65), Whitcomb Woods Senior Housing (n = 23), Fourwinds (n = 27)

Survey: We obtained informed consent from subjects to administer anonymous surveys. Surveys consisted of a validated combination of questions from Vermont Independent Living Assessment (ILA), items written by CSC staff or UVM students, and a modified mini-cog cognitive screen. All responses were by subjective self-report except for the mini-cog, which was supervised by students. The mini-cog consisted of three-word recall, clock drawing, and category fluency.

Data Collection and Analysis: Data were collected in Microsoft Excel 2003, validated by double entry of 20% of cases with 99% agreement. Data were analyzed using either Excel or SPSS software.

Approval: Survey approved by UVM Internal Review Board

DISCUSSION

One hundred fifteen subjects at three different independent senior living facilities were interviewed about many aspects of daily activities, nutrition and cognitive function. Discussed below are selected findings from the overall data set. Many of our results confirm that this population is vulnerable, and from this study there appear to be many areas for intervention.

• Cognitive Screen (Fig. 1): Pass rate (47%) was surprisingly low. Decreasing pass rate with age is consistent with national trends.
• Risk Factors for Developing Cognitive Impairment, Morbidity, Inability to Live Independently (Table 1):
  - Loneliness has been correlated with cognitive impairment.
  - There were high rates of poor nutrition (18%), falls (37%) and polypharmacy (average number of prescriptions was 6). These risk factors are correlated with morbidity, cognitive impairment, and inability to live independently.
  - There was a high rate of physical activity among respondents, which is a protective factor against the aforementioned outcomes.
• Potential Sources of Error in Results:
  - Subjects who failed cognitive screening may have provided inaccurate self-reported data.
  - Differences among students’ surveying methods is possible, despite a common training session.

REFERENCES