

## **Purpose of the study**

Vision Design Group Studios intends to collaborate with Dr. Jane L. Nichols of Western Carolina University on a Pre-Post Occupancy Evaluation study at Asbury Place, an Assisted Living facility in Kingsport, Tennessee.

The purpose of the investigation is to determine if and how modifications to the living environment impact resident, family and staff behavior and resident health and wellness.

A **Main Street** renovation-expansion is planned. Our hypothesis is:

*By creating an engaging environment that enables and encourages greater resident independence, increases opportunities for social interaction and expands stimulating activities, residents' perception of quality of life will improve, residents will take a more active role in maintaining their physical and intellectual health, and they may rely less on staff to assist them in daily activities. If family members feel more welcome and positive about visiting, they are likely to remain more connected and involved.*

*An additional outcome we predict is a stronger organizational culture of health-care teams, in which the residents and their families take a more active part in resident wellness maintenance, working in tandem with staff-teams. Currently, the culture that exists is one of resident-patient 'consumer' and healthcare-worker 'provider', in a sort of 'pay-for-service' model. Care costs are rising, the current model is inefficient, and it contributes to a negative milieu of stratification, sense of entitlement and poor relations between residents and staff.*

## **Significance of the study**

The **Main Street** environmental modification-intervention planned is both costly and disruptive to community residents and their daily routines. Without measurable benefits, these types of building improvements are merely aesthetic exercises. Main Street additions are taking place and in planning stages for many assisted living facilities across the nation. It is critical to determine if these interventions benefit residents, families and/or staff.

Additionally, as the U.S. population of elderly rapidly grows, the number of trained and qualified healthcare providers is shrinking, and this is even truer for healthcare workers caring for the elderly. The elderly and the old-old (85+ years of age) can be challenging patients, and may require a great deal of assistance. It is imperative that we find ways of co-caring that reduce the burden on medical costs, offsetting the care to the individual and family members. Creating environments that are conducive to sustaining independent behavior and encourage family involvement may be part of the solution. A built environment that supports these goals would be considered a valuable public and private investment, and be a positive response to the population surge in the elderly and old-old.

## **Methodology and framework**

To determine if there are changes to attitudes, behavior and/or health and wellness maintenance, we intend to use a multiple methods approach. Assumptions based on the research include:

- Perceptions of quality of life are rated higher when people are socially active
- A person who actively pursues good health and wellness maintenance tends to remain healthier longer and experiences fewer conditions of co-morbidity
- The environment-behavior link impacts human health and activity, and "environmental press" is a key factor in maintaining self independence
- Persons that actively seek mental and intellectual stimulation appear to maintain greater cognitive function as they age
- Social interaction can reduce a sense of loneliness, abandonment and uselessness
- People engaged in their immediate and wider communities feel more connected to life and to society

- A personal outlook of altruism and “giving back” is indicative of mature emotional development, an objective of “successful aging”
- Community engagement and opportunities for volunteering provide a sense of accomplishment and reward, and may contribute to “legacy-building”
- “Successful aging” is incumbent upon positively adapting to the aging process
- Family members that are present and feel part of the resident community contribute positively to the health and wellness of the resident member and the associates

## **Methods (See Addendum)**

### **Pre-Construction Intervention**

1. Gather baseline measurements to determine activities, behaviors, attitudes and perceptions of residents, family members and healthcare staff. Nursing staff associates will track the use of specific spaces and resident activities, including: Wellness Center visits, Salon visits, Visits from family members, Volunteering, Computer use and Meals eaten alone or with others. Pre-construction tracking will occur over the course of three months
2. Conduct focus groups with small groups of residents, family members, and healthcare associates
3. Survey residents, seeking a minimum of 50 responses

### **Post-Construction Intervention**

1. Gather measurements to determine change in activities, behaviors, attitudes and perceptions of residents, family members and healthcare staff. Nursing staff associates will track the use of specific spaces and resident activities, including: Wellness Center visits, Salon visits, Visits from family members, Volunteering, Computer use and Meals eaten along or with others. Post-construction monitoring will occur over the course of two months. Compare pre-construction and post-construction measurements.
2. Conduct focus groups with small groups of residents, family members, healthcare associates
3. Survey residents, seeking a minimum of 50 responses

All group responses will be transcribed and coded to preserve anonymity. Surveys will be anonymous, and turned in to the reception desk in a letter tray. Each resident will receive one survey to complete at their leisure within one week. Consent forms will be presented to each participant. We will attempt to randomly invite resident and family members to the pre-construction focus groups, however, they will self-select. It has not been determined if we will invite the same or new participants to the post-construction focus groups.

## **Analysis**

Qualitative data gathered through focus group activities will be analyzed two ways: First, we will develop categories of words and phrases for content and search for patterns of responses based on similarities (content analysis). Second, we will use poignant responses as direct quotes in the summary of the data and conclusive report.

Quantitative data from baseline comparison metrics and from surveys will be analyzed statistically (exact method to be determined later; ANOVAs or other).

## **Dissemination**

Our intention is to share the study evidence with assisted living facility builders, operators and regulators, through white papers and other periodicals. We will also submit manuscripts to scholarly journals, such as: *Generations*, *The Journal on Active Aging*, *Research on Aging*, *Journal of Interior Design*, *Journal of Aging and Social Policy*, and/or others. The study and results will also be presented at academic and professional conferences. Finally, we will submit the study findings to the *AARP Journal*.