

## **Cultivating A Patient-Centered Environment (CAPE): An Analysis of Wellness Measures Among Long-term Care Residents Following a Major Facility Renovation**

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### **Background**

High-quality care in long-term care facilities (LTCF) is increasingly characterized as person-centered care (PCC) delivered in home-like settings. We report findings from a quality improvement initiative at one LTCF designed to enhance residents' well-being via the structural transformation of an outdated nursing home unit into a PCC-concordant environment.

### **Purpose**

Determine if living in a renovated PCC-concordant setting enhances residents' wellness.

### **Methods**

A secondary analysis of geriatric assessments was performed. Wellness measures, including mood, functional and nutritional status, cognition, recreation, connectedness, and autonomy, were extrapolated from residents' quarterly *Minimum Data Set* assessments and *Choice Scale* surveys upon opening the newly renovated household unit (baseline) and again one year later (follow-up). *Quality of Life Survey* responses were analyzed only at follow-up.

Following the renovation, multiple residents were lost to follow-up secondary to hospitalization, death, or relocation to non-renovated units given the COVID19 pandemic. Accordingly, the planned pre-post analysis was modified to include assessments from two independent convenience samples. Outcomes and perspectives from residents on the renovated unit were compared to data from their counterparts on non-renovated units, resulting in an analysis (*Wilcoxon Rank Sum test*) of four comparison groups—two baseline and two follow-up groups. Each sample (n=38) contained 6 residents from the renovated unit and 32 residents from three non-renovated units.

### **Results**

(*Health Status*) At follow-up, no residents from the renovated unit showed evidence of anhedonia compared to 10% prevalence among controls. Mood worsened in both groups but was poorer among controls. Compared to their baseline counterparts, residents from the renovated unit were increasingly independent with activities of daily living and had a lower prevalence of dementia (41% to 20%) at follow-up. Conversely, a net loss in functional status and increase in dementia (60% to 65%) occurred among controls between baseline and follow-up. Poor appetite increased above baseline in both follow-up groups.

(*Quality of Life*) Compared to baseline, residents from the renovated unit that agreed that they could eat when desired was 6% higher at follow-up, but 17% lower among controls. Agreement that staff act on suggestions, and residents may bathe when desired, declined among both follow-up groups. At one year, more residents from the renovated unit than controls agreed that they could spend time with like-minded peers (68% vs 53%), explore new interests (86% vs 43%), receive requests for help from others (50% vs 37%), make new friends with ease (67% vs 56%), and maintain close friendships with fellow residents (50% vs 38%).

### **Implications for Future Research**

Continued assessments of the second sample may clarify the impact of PCC-concordant environments on residents' wellness within this LTCF. However, future within-subjects analyses of larger samples are indicated. Likewise, few studies have adequately explored the effects of PCC-concordant settings on family and LTCF staff.

### **Conclusions**

Overall, these data have limited rigor given the circumstantial use of two small independent samples folded into a pre-post study design. However, they trend towards showing the PCC-concordant renovation at this LTCF was likely associated with improvement in residents' health status and quality of life.