Impact of Design Interventions in Nursing Home on Residents with Dementia, their Families, and the Staff

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Abstract
The purpose of this study was to determine whether certain design interventions in a nursing home affect resident with dementia outcomes, family involvement and interaction, and staff perceptions of care delivery.

The study was conducted in Kingswood Manor, a nursing home located in Kansas City, which went through a major reconstruction in 1999-2000. The new setting includes dining and bathing facilities that serve smaller groups of residents and two new wings designed as a cluster of rooms around a common living room. The majority of the rooms in the new units single occupied and equipped with private bathrooms, larger storage space and other residential accommodations. The new design promised to contrast the medical orientation of the existing nursing home with a more residential environment.

A team of researchers, representing the disciplines of environmental design, human development and family studies, and nursing conducted the study. A combination of quantitative and qualitative methods to assess the impact of the environment on its users was used. The study design involved a two-group pretest-posttest comparison in which a sample of residents who eventually were relocated to the newly designed wing of the facility (Treatment Group) was compared with a sample that remained in the existing setting (Control Group). By comparing the two groups before and after the design intervention (controlling for any baseline difference between them) on a number of issues, we were able to draw conclusions about outcomes induced by one environment versus the other. The instruments that were used in the study included the Professional Environmental Assessment Protocol (PEAP), Behavioral Mapping, the Minimum Data Set (MDS 2.0) for resident outcomes, family involvement assessment, family satisfaction survey, personal interviews with families, and focus group interviews with staff members regarding their perception of care delivery and the physical environment.

Findings and implications of this study will provide new knowledge in integrating the diverse professional aspects that contribute to a responsive long-term care setting.

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Acknowledgements

Over two-thirds of nursing home residents (70.8 percent) suffer from some form of dementia. Almost one third (30.2 percent) exhibit some form of behavior problem, such as verbal or physical abuse, socially inappropriate behavior, wandering or resistance to care. These were the demographics that we kept in mind when in the summer of 1998 we were asked by the executive staff of Kingswood Manor, the nursing home that became the site of this study, to help them to improve their long-term care setting. When the Extendicare Foundation announced in July 1999 the call for the study of nursing homes that established Special Care Units for people with dementia the facility was in the midst of converting the nursing home environment into a more adequate setting for their residents. We were grateful to receive the funding for our study because it allowed us to conduct a post-occupancy evaluation for the design of the facility. We wish to thank the Extendicare Foundation for their funding of our study.

Another source for funding for this project came from the Margaret Mangel award from the College of Human Environmental Sciences in the University of Missouri-Columbia. We are thankful for the seed money we received through this grant.

This study would not have been possible without the support of the executive staff of Kingswood Manor. We wish to thank Ben Thompson who recently retired from his position as the President and Chief Executive Officer of Kingswood after many years. Under Ben’s leadership we became involved in design of the renovation project. His vision and enthusiasm for better environments for the frail elderly encouraged us to turn this initial design project into a comprehensive study. Mike Dirlam, the Chief of operation in Kingswood helped us to materialize this study. We thank him for helping us with the coordination of the interviews with the staff and the families of the residents. We are appreciative of the time and efforts he invested in this project despite his busy schedule.

We want to dedicate this study to the residents of Kingswood Manor, their families and the staff of this setting, who helped us in our quest to make interventions in the design of environments be tailored to improve the quality of life of persons with dementia and their caregivers.