Conclusions and Implications

Benyamin Schwarz, Ph.D.
Habib Chaudhury, Ph.D.
Ruth Brent, Ph.D.
Department of Environmental Design
University of Missouri-Columbia

In conclusion we want to return to the main research question of this study: Do design interventions induce desirable outcomes in residents with dementia, their families and the staff of a nursing home? Answering this question, as one might expect, is not a simple task even when the answer is broken up according to the original research questions. Due to the nature of the subject matter, the characteristics of the setting are intertwined with issues of policy, lack of special programs, problems with balancing staff workload, and the overall task of maintaining residents throughout the progression of the disease.

Clearly, the new residential setting with its homelike attributes helped to change the patterns of space usage by the residents. Evidence of the changes may be found in the findings of the Behavioral Mapping and the Professional Environmental Assessment Protocol (PEAP). Other indications for the change in resident interaction with the environment are found in quotations from the staff focus group. In most cases, the changes have been positive and seemed to justify the investment in the modification of the environment.

Physical and spatial elements are critical components in people's relationships to settings. The configuration of the space and its attributes can provide residents with opportunities for independent action, control, privacy, and socialization. However, because of the policies in this particular facility, many residents move to the health center when they are too frail to benefit from the special features that are offered there for people with dementia. Furthermore, the health center houses residents with dementing illnesses as well as residents who suffer from combinations of other chronic diseases.

The interviews we attempted to conduct with the residents are, perhaps, indicative to this situation. Prior to the renovation we provided disposable cameras to several residents of the facility. We asked them to take pictures of the most significant attributes of their environment. The pictures were expected to serve as stimulants for the interviews regarding the physical attributes of the setting. However, when we tried to interview the residents, we
were unsuccessful in our communication attempts with the majority of them. Some of them could not remember why they took the pictures. Others could not or did not want to talk, and many were too frail to discuss their environments and provide us with meaningful insights. As a result, we discontinued the interview process and focused, instead, on the observational data gathering.

The results of the behavioral mapping indicated that some of the environmental interventions had positive outcomes. The special programs could not be followed to the same degree because the facility went through some difficulties in staffing and programming at the time when the research was conducted. Some of the adjustment problems were discussed in the interviews with the CEO and the Chief of operation. These difficulties influenced our ability to detect significant changes in resident outcomes; we could not identify changes in processes of care that lessen aggressive behavior or increased levels of activity participation by residents with dementia. And unfortunately our investigations could not link the environmental features in the new setting to outcomes, such as cognitive or functional performance of the residents or reduced levels of agitation. But, based on the interviews with families, staff and the executive staff, it looks like the overall safety and the residents’ quality of life were improved as a result of the environmental modifications.

The interdisciplinary approach that guided this research proved to be fruitful, despite the challenges that are associated with this kind of cooperation. The team plans to expand the research in more nursing homes and Special Care Units for people with dementia. The outcomes of this study were presented in several locations. Most notably in the annual meeting of the Environmental Design Research Association (EDRA) in San Francisco in 2000 and in the Gerontological Society of America (GSA) in Washington D.C. in 2000. Another presentation is scheduled for the GSA in Chicago on November 2001 and a paper to the Interior Design Educators Council (IDEC) in Santa-Fe 2002 was submitted. The team plans to submit papers to the Journal of Housing for the Elderly and other journals associated with Alzheimer’s research.

The need to establish state policies regarding standards for SCUs motivated the State of Missouri to enact in 1999 a provision for its Division of Aging to establish and implement demonstration projects which will provide state-of-the-art care facilities for individuals with Alzheimer’s disease. Sixteen care facilities throughout the state were selected in August 2000 to become pilot projects. The chosen facilities were instructed to use the social model rather than the institutional, medical model and to design and implement a residential environment,
which promotes the maintenance of residents’ social abilities through daily and frequent opportunities for socialization and appropriate activities. The residential environment shall be designed and utilized in such a way as to reflect the individual preferences of residents and to provide as much independence and opportunities for choices throughout a day as possible.

Our team has proposed to conduct an interdisciplinary study in which all sixteen new facilities in Missouri will be evaluated for three years to examine the impact of a complex group of organizational, programmatic, and environmental factors on resident health and social experience, staff performance, and family caregiver satisfaction. These demonstration projects provide a unique opportunity to conduct an action research that will help to gain knowledge from the early stages of the development through the occupancy stage and finally the post-occupancy evaluation. Funding for the project is still pending.

With the increased interest and awareness of the special needs in the growing population of people with dementia, and the particular requirements for Special Care Units, we believe in the need to study these facilities to inform practitioners and policy makers about how better to organize specialized dementia care.