

THE EDEN ALTERNATIVE: THE ENVIRONMENTAL
EXPERIENCE OF RESIDENTS IN AN "EDENIZED" NURSING
HOME

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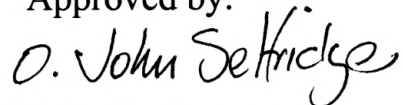
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ABSTRACT

The Eden Alternative was developed by William Thomas, M.D. and Judy Meyers-Thomas in 1991 in order to improve quality of life in nursing homes. The Eden philosophy identifies feelings of loneliness, helplessness, and boredom as three serious problems in long term care. Dr. Thomas advocates creating a "human habitat" filled with companionship, opportunities to give and receive care along with de-emphasis of medical treatment. The philosophy of The Eden Alternative has three main themes. 1. Changing culture of the organization, 2. Creating a human habitat with living things, 3. Cultivating spontaneity in daily life and work.

This study explores the influence of an "Edenized" environment on the feeling of "being at home" for residents. In this paper, physical setting, residents' experiences, and behaviors were described and analyzed. In addition, suggestions are made for creating supportive environment for The Eden Alternative.

Positive influence on the people's everyday life in the nursing home was observed. Both residents and staff members seemed to enjoy living with animals, plants, and children in the nursing home environment. Those "living things" seemed to help making the nursing home lively environment. They also attracted visitors and made their visitation pleasurable experience, especially for children.

The "Edenizing" process created sense of belonging and ownership to this place from both residents and staff members. The environment with "living things" also cultivated residents' sense of relatedness with outside world.

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PREFACE

I have been interested in improving nursing home environment and residents' quality of life since the first time I visited my grandmother in a nursing home. She was a very special person to me. I respected her as a wise elder. When I visited her in the nursing home, I experienced feelings of frustration, sadness, and anger with respect to both the environment and the care that she was receiving. I thought it was not a suitable place for elders like my grandmother. She, like so many others of her generation, had done so much in her life. She had lived through World War II and the difficult post-war times. She sacrificed herself to raise her children and tried her best to make people happy. I believed strongly that these environments were not appropriate for my grandmother, or other elders. They deserved to live in better places. As I will do for narrative and personal response is in the main text of this thesis, the following is recollection of my first experience of being in a nursing home.

I still remember the experience of visiting a nursing home for the first time. It was such a scary and traumatic experience for me. The memory still remains in my mind clearly. When I walked into the nursing home to see my grandmother, I was shocked to see her living environment.

At the entrance, there were several potted flowers. When I walked into the entrance, there was a staff room right next to the entrance door. The staff members were observing me with suspicious looks. I immediately felt that I was not welcome there. They were chatting with each other and pretending they did not recognize me. Since I did not know the location of my grandmother's room, I decided to greet them to get their attention so they could show me where I could find my grandmother. They returned my

smile almost politely and asked what I wanted. I told them I had come to see my grandmother. They told me that her bed was on the second floor. One staff member came out to the hallway and directed me to the second floor. On the first floor, there was a doctor's office, examination rooms, the kitchen, and an activity room but no rooms for residents. The hallway was very dark. The floor reflected the glaring light from the fluorescent ceiling lights and from the sunlight coming through the emergency exit door at the end of hallway. When we went upstairs, there was a white plastic half door, which was locked from the entry side. The staff member unlocked the door for me. She told me to make certain that I would let staff members know when I had finished visiting my grandmother. She did not converse with the residents merely walked back downstairs to her office. When I walked into the second floor hall, I saw several elders sitting right next the door. They came up to me and started talking. They appeared to be happy, even anxious, to talk to visitors.

The second floor residents asked me who I was visiting: I explained to them that I was visiting my grandmother. One of the elders who was much more polite and gracious than the staff member, pointed to my grandmother's room and walked there with me.

When I walked into Obaasan's room, she was in her bed and had wrapped herself with a brown blanket. When she heard my voice close to her bed, she quietly looked at me and tried to talk. Since she was severely demented, she did not seem to remember my name, perhaps not even my face. She could not communicate orally any more, even though she tried. The voice came out from her mouth sounded like screaming rather than talking. I could not understand what she was trying to say.

Her hand reached my hand and tried to grab the bouquet of flowers. When I put the flowers next to her, she started crying and touching them very carefully. She was looking alternatively at the flowers and my face alternatively for a while. I still do not know how she was feeling nor what she was thinking at that time. The only thing I could sense was that she was very happy to see me with the flowers. I held her hands for a while. When I was about to leave, she screamed something, which I could not really understand. She was trying so hard to tell me something. I asked her to repeat it several times. Finally, she managed to say, "A-RI-GA...." This is the half sound of the word for "A-RI-GA-TO-," "Thank you" in Japanese.

On the way back to my home, I thought about the life of my grandmother and the other residents. I was very angry about the environment I saw in the nursing home. Those elders had contributed so much for our society. Although they are suffering from physical and mental problems, they are people who should be treated with respect. I strongly believed that the environment and care of nursing homes should be changed.

POSTSCRIPT AND DEDICATION

My grandmother's life ended in the nursing home few years ago. She could not come back to her home where she had lived for more than 80 years. I still have a feeling of guilt that my grandmother died in the setting that was sterile as in clean, but disrespectful, insensitive, uncaring, unfriendly, and cold. This study and my career will be dedicated to my grandmother and the other elders who showed me the right path for my life.

INTRODUCTION

The Eden Alternative™ was developed by William Thomas, M.D. and Judy Meyers-Thomas in 1991 in order to improve the quality of life in nursing homes. The Eden philosophy identifies feelings of loneliness, helplessness, and boredom as three serious problems in long-term care. As a practicing geriatrician, Dr. Thomas found that nursing home residents frequently suffered from those maladies. While medical technologies have led to many improvements in residents' clinical status, conventional medical practice had offered little to lonely and bored people living in long-term care institutions. Dr. Thomas advocates creating a "human habitat" filled with companionship, opportunities to give and receive care along with de-emphasis of medical treatment.

Most traditional nursing homes operate within the so-called "medical model." This model, so named from its mirroring of hospital care, emphasizes professional staff members providing treatment to dependent elderly residents. Life in such places revolves around the facility's routine; activities are programmed and structured, and staff move impersonally from resident to resident. There is a general sense that the facility belongs to the staff. Residents come to be known and discussed by their diagnoses and weaknesses, not their strengths.

Unlike hospitals which treat acutely ill patients, nursing homes ought to be places where people can feel "at home." In many cases, residents stay for long periods of time and may spend the rest of their lives there. The Eden Alternative proposes to change conventional nursing home environments into places where people can live and grow. As such, this model can be classified as a "social model" in contrast to the "medical model." The philosophy of The Eden Alternative has three main themes:

1. Changing culture of the organization
 - Resident centered-care
 - Staff empowerment and the reduction of a rigid management hierarchy
2. Creating a human habitat with living things
 - Introducing animals, plants, and children into the environment
3. Cultivating spontaneity in daily life and work
 - Creating an environment where residents spontaneously interact with a variety of living things as part of their everyday life, as well as more usual programmed activities

The designed environment has a powerful influence on residents' physical, psychological, and spiritual everyday experiences. Numerous studies have been done in a variety of disciplines that recognize problems of the conventional nursing home environment. (Cohen and Weisman, 1991; Namazi, 1994; Regnier, 2002). These and other studies document that the nursing-home environments can be and have been improved in ways that enhance the quality of life of residents.

Although the transition of medical model to social model has been made in numerous facilities over several decades, the metaphor of "institutional" still remains the dominant paradigm. Dr. Thomas has proposed the Eden Alternative as a means of transforming otherwise sterile environments into rich human habitats.

I was introduced to the philosophy of the Eden Alternative when I was studying horticulture therapy for elders in nursing homes. I was excited to learn about this new program as it seemed in keeping with my own personal interests in improving elders' quality of life. At that time, I was interested in potential therapeutic benefits created by activities

with animals, plants, and children. When I enrolled in a Masters of Architecture program, I became interested in the impact of Eden Alternative on the physical environment in nursing homes. I was especially interested in learning about the everyday experiences of the residents who lived in “Edenized” nursing homes where “natural environments” had been implemented.

In order to more fully understand the philosophy of The Eden Alternative, I contacted Dr. Thomas in the Eden Alternative Home Office in Sherburne, NY and described my research and personal interests. He recommended that I participate in the three-day training session to qualify as a “Certified Eden Alternative Associate.” His organization kindly gave me a student scholarship to attend the training session in February 2001.

In the training session, I learned that the philosophy of The Eden Alternative was much more than just introducing animals, plants, and children into nursing homes. Dr. Thomas talked about the importance of changing the culture of conventional nursing homes. The Eden Alternative’s Ten principles (see appendix A) were explained thoroughly during the training session. One of the important messages was “warming up the soil,” its soul is analogous to the warming of soil for spring-time planting to create the environment where staff members help each other. Adopting The Eden Alternative does not necessary take money, but does require staff members provide “genuine care” to the residents. Throughout the training, I learned that the “environment” in nursing homes is created not only by the physical setting but also by people’s attitude. In turn, this also makes every nursing home a unique place. In fact, Dr. Thomas emphasized that each Eden Alternative facility should be unique. Eden Alternative facilities will not appear as if they are identical franchises.

Many articles regarding The Eden Alternative provide heart-warming stories of

residents' life with animals, plants and children. There is also published research that examined the outcomes such as use of medications and a reduction in staff turnover as a result of implementing the Eden Alternative program. However, my search of the literature found no studies that described residents' everyday life experiences in a nursing home that embraced The Eden Alternative philosophy.

The general focus of this research is the everyday environmental experiences of residents at nursing homes in the United States. More specifically, this study explores the influence of an "Edenized" environment on the feeling of "being at home" for residents.

Research questions include: (1) Does the Eden Alternative's emphasis on the "Human Habitat" provide or enhance the feeling of "being at home" for the nursing home residents? (2) Why and how do the four elements of the Eden Alternative (animals, plants, children, and resident-centered culture) influence the everyday environmental experience for the residents in the nursing home?"

Considering residents, staff, regulations, places, and community culture, a nursing home environment is complex and a challenge to grasp and understand. In order to address the questions of this study, the environment of an "Edenized" nursing home is investigated in terms of physical setting, human activities, and meaning of the place for the residents. To help understand this intricate environment, a triangulated data collection was planned: participant observations, behavior mappings, and multiple in-depth interviews with residents.

BACKGROUND

Eden Alternative

There are approximately 17,000 nursing homes in the United States (NHA, 2001). Among them, approximately 240 facilities have been registered as Eden Alternative facilities in the United States in 2002. In addition, there are many facilities that are in the process of becoming registered Eden Alternative facilities. Moreover, the interest this philosophy is spreading to other countries, such as Canada, Australia, and European countries.

Dr. William Thomas found that nursing home residents are suffering from feelings of loneliness, helplessness, and boredom. The philosophy that has developed from these observations centers on the need to create a place where elderly residents can grow. In order to solve this problem, he addressed the necessity of providing “genuine care” for residents, instead of “treatment.” (Thomas, 1996)

To achieve this objective, he advocates the importance of transforming the nursing home environment from “institution” into “human habitat” to meet the nursing home residents’ physical, psychological, social, and emotional needs. He encourages professionals in nursing homes to realize the importance of a “warm environment that is provided by not only staff members but also the co-habitat: the environment of the residents, and the “living things,” such as animals, plants, and children”. (Thomas, 1996) (See Appendix A- Eden Alternative Ten Principles)

The first Eden Alternative facility was introduced as a demonstration project in an existing nursing home in New Berlin, New York, in 1991. In this “Edenized” facility, research was conducted to evaluate the influence of the Eden Alternative program over a four-year period. The result showed that the facility reduced the number of depression

medicine prescriptions by 25 percent in a three-year period. The same facility had a 20 percent lower mortality rate after two years of Eden Alternative program compared to a similar facility not in the Eden Alternative Program. (Thomas, 1996)

In order to evaluate the influence of The Eden Alternative, Ransom conducted a research in “Edenized” nursing homes in Texas. This research found that specific homes were experiencing significant satisfaction and quality of life both of residents and of staff members. (Ransom, 2000)

Although The Eden Alternative was widely accepted as a positive influence for conventional nursing homes, one study found that there were more falling incidents recorded in a nursing home over one year after the Eden Alternative had been embraced. This result raises, as always, the role of variance in small samples, and also the possibility that the whole Eden Alternative program with its staff culture change and environmental changes may not produce positive changes in the short term. (Coleman, et. al, 2002)

Thomas (1996) suggested the importance of living in a “human habitat” for life: “Every ethnic group in every historical age has possessed a rich tradition of agricultural beliefs and practices. We need to make more of these connections, not less.” He advocates emphasizing the introduction of animals, plants, and children to transform the nursing home environment into a “human habitat”.

Research to evaluate the influence of the Eden Alternative on nursing home residents’ lives has been limited. In the following section, empirical studies that are related to three elements of Eden Alternative, animals, plants, children, and of other housing alternatives for elders are explored.

Animals

The idea of having animals in nursing homes has been accepted for a long period of time. It has taken place naturally in some nursing homes in order to comfort residents. The Eden Alternative encourages “full-time live-in animals” instead of “visiting animals.” There are some researches that evaluated the influence of “animal therapy” but not much research has been reported for “full-time live-in animals.”

Several researchers have shown that nursing home residents’ interacting with animals has enhanced social interaction. (Fick, 1993; Bernstein, P.L., Friedmann, E., Malaspina, A., 2000) Other researches have concluded that taking care of animals and petting them provides a sense of control for nursing home residents, who usually have a limited sense of control in their lives in nursing homes. (Katcher, Beck, 1983; Lockwood, 1983; Baun, McCabe, 2000) Calvert found that the elders who had frequent interaction with pets experienced less loneliness than elders who did not. (Calvert, 1989) Some research found that intimate relationship between elders and animals helped to decrease feeling of loneliness by enhanced social interactions with other elders. (Jessen, Cardiello, and Baun 1996; Banks and Banks, 2002)

Children

A nursing home is usually a very age-homogeneous environment. Living with other age groups may create age diversity in a residential setting. In a nursing home, this may make the environment a lively place. Children can be invited to nursing homes in formal/informal setting at regular or intermittent times. The Eden Alternative encourages “spontaneous” activities between residents and children with the principal outcome being the enjoyment that comes from companionship. In the past, intergenerational activities have been introduced as a

part of programmed activities in nursing homes. Research has evaluated the influence of providing activities with children on residents' behaviors in nursing home environment. The results suggest that these activities with children created beneficial situation for elders' lives in the nursing homes.(Dempsey and Pruchno, 1993)

Activities involving children have encouraged residents to actively participate in such activities. This has also promoted friendship and companionship with children, which in turn, has helped decrease a sense of fear and of isolation.(Newman and Ward, 1993) Visiting children have been seen as creating positive interaction, the giving and receiving of affection for residents.(Kuehne, 1989) Interacting with children provides residents the opportunity to play different roles in a low effort environment. Residents also have been reported as becoming more active and having a sense of personal continuity. (Archley, 1980) In terms of programming beneficial activities, research shows that uncomplicated activities between residents and children were the most successful. (Griff, Lambert, Dellman-Jakins, and Fruit, 1996)

Plants

In the relationship between nature and human beings, numerous researchers have studied the meaning of the natural environment for people.(Kaplan, 1989; Cooper Marcus, 1999; William, 1993; Searles, 1960) In the health care setting, Ulrich investigated humans' physiological response to nature and found that the viewing of the natural environment was effective in recovering from surgery. (Ulrich, 1994) In long-term care facilities, Whall, et al. (1997) studied the benefits of natural elements within the environment for people with severe cognitive impairments. In this study, they found that "natural elements such as bird calls and pictures in conjunction with other natural elements such as food, was associated with

decreased patient agitation and aggression and a more positive affective response.”

According to Lewis (1996), “The plant world is non-threatening and nondiscriminatory.” Further, plants are a part of a universal experience with other living, responsive, and familiar organisms. In a study by Rachel and Steven Kaplan (1989), a majority of the respondents gave “peacefulness and tranquility” as the most important satisfaction gained from gardening.

Interacting with nature may provide an advantage to elders with cognitive impairment by stimulating long-term memories. Wilson (1993) described the relationship between nature and human genetic memory in the Biophilia hypothesis: “The affinity an individual has to a setting is strongly determined by survival instincts established “thousands or millions of years ago. This survival tactic became the experience influencing the genetic memory.” Lewis (1996) also described that “We are genetically programmed to focus on nature and that our easy and automatic cognitive processing of nature lies at the root of the restorative properties of contact with “natural” environments.” Kaplan posits that “remembrance of things past (e.g. animals, plants) which are laid down in early memory may result in clarity and thus pleasure for the demented.” (Kaplan, R. and Kaplan, S. 1989)

Housing Alternatives for elders

Pastalan explored the social factors confronting older adults regarding housing today (Pastalan, 1990). He investigated the physical, social, psychological issues related to housing issues for older adults. He reported that more than 95% of the older adults who are 65 years or over are living in communities. Moreover, most older adults preferred to stay in their own home. If, as this research documents, staying in their own home is very important for older adults, then changing their living environment to a nursing home may not be an attractive

solution for them. This may even be a traumatic experience for some older adults.

The main idea of the Eden Alternative philosophy is to create a “human habitat” by introducing living things into the nursing home environment. The goal is to enhance the feeling of “home” for the residents residing in nursing homes. Recently, many long-term care facilities have been built to make their environments “home-like”. However, the actual environments often reflected designers’ notion of “home-like” settings rather than the residents’ perspectives or from research.

Designers have been trying to create “home-like” environments to ease residents’ negative feelings caused by living in nursing homes. In fact, the physical environment of long-term care has been improved dramatically in last two decades. However, Frank (1999) revealed that residents, who were living in long-term care facilities who experienced in a “home-like” setting environment were still far from feeling “at home.” She interviewed elderly residents to gather their experiences in an innovatively designed assisted-living facility. The aim of assisted living is to provide residents an environment where they can feel at home. The result showed that the assisted-living residents did not feel the place was their home. In the interview, one resident expressed her feeling of the place: “I live here, but it’s not my home.”(Frank, 1999, p.184) Learning from the resident’s comment, the feeling of being at home is caused not only by the physical setting but also with the emotional meaning of “at-home.”

The feeling of at-homeness is defined as “the taken for granted situation of being comfortable and familiar with the world in which one lives his or her day-to day life.” (Seamon, 1979, p.80) He identified five underlying themes of at-homeness as; rootedness, appropriation, regeneration, at-easiness, and warmth. (Seamon,1979, p78-85).

Pastalan also posited that “to be at home is to know where you are; it means to inhabit a secure center and to be oriented in space.”(Pastalan, 1990) We inhabit our home day after day, slowly developing a sense of familiarity with the environment to the degree that it becomes predictable, taken for granted, and comfortable. Personal rituals play an important role in the lives of people including those of late age. He stressed that importance of nurturing and maintaining personal rituals to preserve and enhance the residents’ quality of life.

In order to understand social life of nursing home residents, Gubrium conducted several studies to investigate and describe the culture and situation of nursing homes. He visited a nursing home over a three-year period to gather elderly residents’ narrative information of their past experience. He succeeded in gathering data to learn how residents felt about the nursing home environment and what were their concerns by visiting them frequently and establishing a close relationship with them to ease their talk about their life experiences. He posits in this study that a “horizon of meaning” exists in of the life in nursing home, namely: worry, disappointment, regret, death, hope, and joy. (Gubrium, 1975, 1993)

Rowles, who is a gerontologist and geographer, has conducted research investigating the geographical barriers for the older adults living in the community. He gathered the insight available from narrative information by in-depth interviewing and dispassionate observation over a two-year-period with six elderly residents, who were living in their community. He emphasized that it was necessary to establish intimacy between the researcher and subject in order to grasp the meaning of that place to the subject. Based on his field research, he interpreted the commonalities of older people’s geographical experience into four elements: action, orientation, feeling, and fantasy. (Rowles, 1978)

METHODOLOGY

Research site

I conducted this field study at the Elim Care Center in Fargo, North Dakota. While I was planning my thesis proposal, I explained the purpose of my study to Dr. William Thomas, a founder and director of The Eden Alternative. I inquired of him to make a suggestion for selecting my research site as being a place where the philosophy of The Eden Alternative was well implemented. He introduced me to one of The Eden Alternative coordinators who, in turn, recommended Elim Care Center for my research site. The reason she selected this facility was that she believed it had implemented The Eden Alternative environment well and also would be able to provide me a place to stay in the nursing home.

Three months before my field research, I visited this facility with its Eden Alternative coordinator in order to become acquainted with both the people and the place. During my first visit, I explained the purpose of the study and the methodology to the administrator, David Viland. He was excited about having a researcher who could objectively evaluate what this facility has been doing to improve residents' life. He assigned a staff member to show me around this facility and introduce me to other staff members who were working at that time. Mr. Viland also explained me that my research plan would have to be approved by the resident council. I submitted my research plan to the resident council and it was approved in their meeting two weeks later.

The Elim Care Center is a non-profit organization affiliated with Evangelical Free Church. It is located at the edge of downtown Fargo. There are 98 beds in a skilled-nursing unit and 48 beds in an assisted-living unit. Both the skilled nursing and the assisted-living units were 100 percent occupied almost all year around. In the skilled nursing unit, 80

percent of the residents utilized wheelchairs.

This facility began implementing the philosophy of the Eden Alternative in 1995 and became a “registered Eden alternative facility” in 1997. The Edenizing Mission Statement of this facility is “to provide a habitat that enhances the quality of life for all we serve through a continual, intergenerational, community process utilizing nature's bounties.” Throughout the process of implementing The Eden Alternative, this facility has had thirteen staff members who are Certified Eden Associates. They are from various sections of work, including the administrator, the director of nurse, social workers, certified nurse assistants, housekeeping, dietary, and maintenance.

In order to create a “human habitat” through the philosophy of The Eden Alternative, this facility emphasized resident-centered care. There was a resident council organized by all the residents. They meet every month to discuss issues related to their lives. In addition, the dietary department organizes dietary meetings with residents every other week to discuss concerns about meals.

In the implementation of The Eden Alternative program regarding the physical environment, arrangements were made to bring animals, plants, and children into the facility. At the time of my fieldwork, there were 4 dogs, 5 cats, more than 50 birds, 3 rabbits, and numerous fishes in two fish tanks residing at Elim. There are also many plants in many places both indoors and outdoors for residents to care for and enjoy. There is a child daycare center in the building, so that residents are able to regularly see children in their daily life. All employees in this facility belong to one of the several teams that deal with the flora and fauna. To maintain the living things, there are teams for dogs, for rabbits, for cats, and for plants. Many of the residents are also members of teams and advise staff members as to how they

would like to share in the responsibilities and maintenance.

Demographical information about residents in Elim Care Center

Ethnically, the dominant population of the region is of persons and their descendants who came as immigrants from Northern European countries. This background strongly influenced the culture and life of both residents and staff. Further, most of the residents are from farms and small towns or rural areas and lived with their children before coming to this facility. More than ninety percent of the residents were widows who lost their spouses sometime before moving to Elim. The range of the residents' age was late eighties to early nineties. On average, they had experienced a great deal of sickness as well as loss of loved ones. They were in the generation which grew up in a social environment where religion was important in their daily lives. They also experienced the great depression of the 1930s directly and were in their 20s and 30s at the start of World War II.

Participants

The everyday human activities of everybody (residents, staff members, and family members) in the nursing home were observed in my fieldwork. Twelve elderly residents, 10 staff members, and 4 family members were selected for interviewing.

Procedure

Participant observations and in-depth interviews were conducted to collect information, formally and informally. In the first week, I spent my time becoming acquainted with staff members and residents. When I met a resident for the first time, staff members always

introduced me. In the second and third weeks, I experienced everyday life as a resident in the skilled-nursing unit. In the fourth week, I stayed in the assisted-living unit.

The administrator and the director of nursing recommended that I simulate the experience of having a common disability that residents have in this facility in order to understand more fully the everyday life of residents. The condition of the simulation was that of a person who had experienced multiple strokes and became paralyzed on the left side of the body. In that scenario, I used a wheelchair for all movement around the facility and restricted my left arm with a sling.

This research plan had been approved by the resident council two months before I arrived. After residents' approval, managers also approved my research plan. Managers informed their respective staff members before the research began. Notice of my research was made in advance to residents and staff members as well as family members through newsletters and postings on the bulletin boards.

Observation

Participant observations were conducted by me in the skilled-nursing unit and in the assisted-living unit. I observed the physical settings and human activities of the people throughout the nursing home. In terms of observing the physical setting (building, interior, and exterior), I describe my first-person experience of this facility in a notebook. I documented residents' and staff members' routine activities and unpredicted events in day-to-day life. In this observation, informal communications with residents and staff also took place.

As a part of observations, behavior mappings were used to understand how people

used public spaces in this facility. I walked/wheeled through public areas and took pictures of those places during the first ten minutes of every hour from 9:00 a.m. to 4 p.m., except for lunchtime. The picture information was transcribed. (See Appendix C)

Animals' behaviors and interactions with residents were observed. Plants implementation and the residents' involvement were also observed. In order to understand influences of the on-site child day care, the physical settings and their activities were observed.

Interview

Information of the interviewees' experiences in an "Edenized" nursing home were obtained from multiple in-depth interviews with each participant and, when available, from personal documents such as diaries, photographs, or records of family history. Nonverbal cues, such as participants' facial and body expressions were also recorded.

Selecting interviewees

- Residents

Multiple in-depth interviews were conducted with 12 residents. Their ages were in the range of 87 years old to 93 years old. All of them were European-American female residents. The people who did not have cognitive impairment were selected for interviews. The interviewees were selected by the discussion among administrator, nurses, social workers, activity staffs, and myself. All the interviews took place one-on-one between a resident and myself. I was always introduced by staff members to each resident when the first interview was to take place. After the staff member introduced me, each resident was asked if they would like to participate in this study. Informed consent was read orally by me and

residents signed when they agreed to participate. The residents were asked about their everyday experience in the “Edenized” nursing home. Guided questions had been prepared in advance to help standardize the interviews. The procedure was to encourage interviewees to talk about their experiences in the nursing home. All the interviews were digitally recorded and transcribed after the data-collection phase.

- Staff members

Ten staff members from various sections in the facility were selected for interviews. They were asked about their everyday experience of the Eden Alternative work environment. Staff members were selected who had experienced working in Elim before and after the Eden Alternative program was implemented.

- Family members

Three family members participated in interviews. Family members who visited often were selected. They were asked their experience of the Eden Alternative environment and how they feel about having their loved ones in this environment.

Data Analysis / interpretation

The information of the environment both from observation and interviews were analyzed in terms of physical setting, activities, and meaning of place. Behavior mapping and my field notes were used for analyzing physical settings and humans’ activities. Based on the behavior mappings, the numbers of people in each of the public places were counted and a descriptive statistical analysis was made in order to understand residents’ and staff members’ behavior patterns in everyday life.

Interviews for each respondent were analyzed separately. A summary was drawn for

each respondent and a comprehensive summary was drawn for the experiences with everyday life in the “Edenized” nursing home.

FINDINGS

Learning about residents' experiences in a nursing home is complex. In order to describe the everyday experiences of residents in the Eden Alternative environment, the physical environment, the human activities in the facility and the meaning of place for residents are described in the findings. In terms of the physical setting of Elim Care Center, the "Design Principles" of Robinson, Thompson, Emmons, and Graff (1984) were utilized to objectively examine design issues. My first-hand experience and behavior mappings were also used for describing physical environment and human activities in the facility. Multiple open-ended interviews were used for describing residents' everyday experiences and meaning of place.

Evaluating physical environment using MN project report

The physical setting of the Elim Care Center was evaluated with using the “Towards an Architectural Definition of Normalization: design principles for Housing Severely and Profoundly Retarded Adults” of Robinson, Thompson, Emmons, and Graff (1984). These principles were developed for the purpose of sensitizing people to the architectural elements which affect creation of normalized living environments. Each principle was divided into two categories: “institutional” and “home like.” The principles covered topics from large-scale structural features to intimate-scaled detail features.

These “design principles” were originally developed for the facilities for a mentally challenged populations. The authors mention the possibility of applying these principles to other population who have similar living conditions. In this study, these principles are extended to the environment of nursing homes. Some principles from Robinson, et al. are not applicable for my study, such as some structural features including elevators and stairways.

The complete evaluation is found in Appendix B. The first 236 principles were based on the original work of “design principles” from the Robinson, et al. list, while the principles of 237 to 268 have been added in order to evaluate an environment not included in the original research.

Based on this evaluation, I found that the physical environment of Elim Care Center still had strong institutional physical features. Thirty-four percent of the categories in my revised list were judged “homelike” and sixty-six percent were “institutional.”

This result is not surprising since Elim Center is a thirty-year-old building whose original building design intent was institutional in its whole concept. When this facility was built, the trend of designing was to pursue work efficiency and to create controllable

environment for staff members. Therefore, structural institutional physical features still remain in this facility. For instance, the size, scale, or materials of the building are difficult to change without major building renovation.

However, after the Eden Alternative program began, staff members put considerable effort into making the existing environment as homelike as possible. Furniture in living rooms and the entrance were changed to the ones without institutional appearances; living rooms and hallways were filled with houseplants and handcraft decorations.

The result shows that common areas, especially living room areas and the entrance, have more homelike feature than other areas, such as residents' rooms, therapy rooms, or activity rooms. That is, the areas frequently used by staff members were modified into homelike environments, but the places where staff members did not stay still had an institutional appearance. Close evaluation reveals that the areas with high staff-member use and the areas with high resident-use were clearly different in quality. In order to achieve a holistic meaning of "home like" environment in nursing homes, staff members and designers require sensitivity to residents' everyday lives and experience.

Among the principles that are judged "institutional," some are not possible to be modified because of the physical structure. Others are still possible to be modified within the existing environment.

Physical environment and Activities

The physical features, activities of residents, staff members, and family members, and problems, in each public space are described in this section. The information is based on my first-hand experience, field notes, and behavior mappings.

Overall

This facility is a one-story red brick building. This building consists of five residents' wings and a center courtyard. Each wing has a long double-loaded corridor. In the courtyard, there are several flowerbeds, benches, and a white metal swing for elders. Some residents' rooms face the

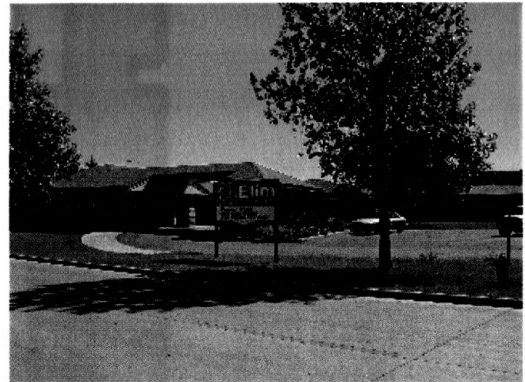
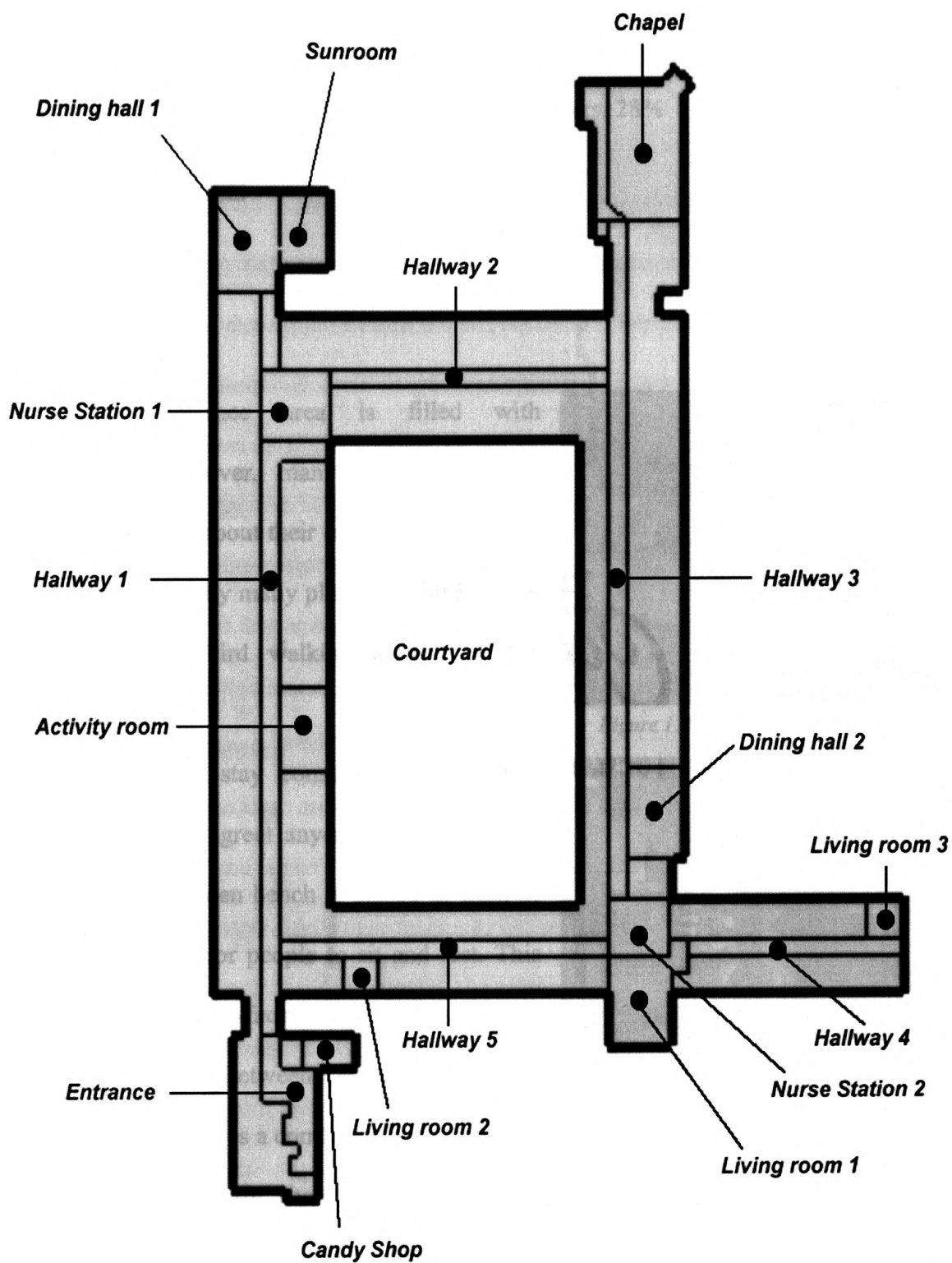


Figure 1.1 Appearance of the building

courtyard and have a view to the courtyard; others face outward to the street and surrounding property. There are two dining rooms, four living rooms, one activity room for residents' use and two nurse stations and one staff room. An entrance area is mainly used for the administrative offices. Between the assisted-living wing and skilled-nursing home, there is a chapel that is open to both residents and public. There is also child daycare in the building.

Figure 3.1. Elim Care Center floor plan



Entrance

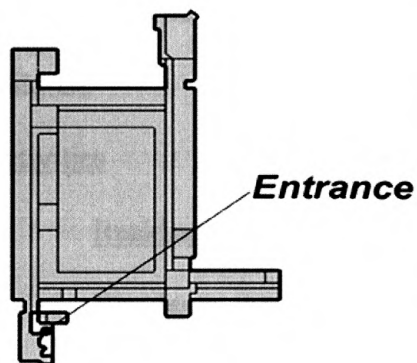


Figure 3.2. Entrance

Table 1. Entrance use: Total records by percent by analysis

1. Staff members: 51%
2. Family members: 28%
3. Residents: 21%

Physical features

The entrance area is filled with houseplants. Moreover, many birds are heard singing as they flit about their cages. The reception desk is surrounded by many plants and birds; there was always one bird walking around on the reception desk.

Two dogs stay constantly at this area during the day and greet anyone who walks into this facility. A wooden bench is placed in front of the reception desk for people to sit and rest. This space has large south-facing windows as sources for bright sun-light. Between the entrance and the nearby hallway, there is a comfortable conversation area with sofa and table for residents and family members to enjoy. There was also a large fish tank in this space.

The entrance is the first space most newcomers experience Elim Center. This space



Figure 1.2. Seating area in entrance

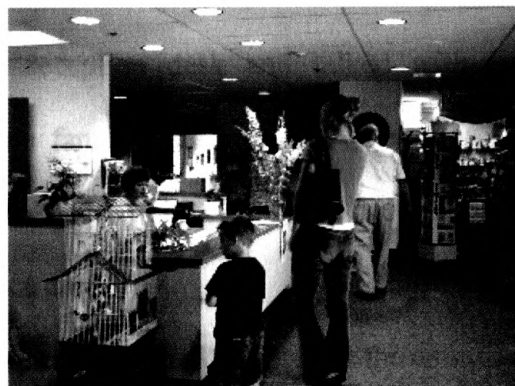


Figure 1.3. Reception desk in entrance

provides people the feeling of being in nature and appeared to be fun for visitors, especially for children.

Activities

Residents

Residents used this space when their family members were visiting them. I observed residents and their guests would sit together and talk in this area during the afternoon. A few people wandered into this area and some tried to get out the entrance door. Anytime residents tried to wander out, the receptionist came out from her desk and kindly encouraged them to stay inside.



Figure 1.4. Fish tank in entrance

Staff members

The main administrative offices are in the entrance area. There was always one or two staff members in this space and they were observed talking to other staff members or visitors. I observed more managers than floor staff in this area.

Family members

Family members usually stopped by the reception desk and talked with the receptionist before and after visiting residents. More family members who stayed at the entrance in the afternoon than in the morning. On weekends, I observed more visitors in the facility overall, but fewer visitors stayed at the entrance area.

Children seemed to be very excited about playing with small animals at the entrance. There were children both from the Elim daycare center and from the neighborhood visiting this area to play with the animals. Most of the children who visited this place were fascinated by the fish tank. Children nearly always stopped and watched the fish for a while.

Problems

The entrance area is a well-decorated space but was used more by staff than residents. This was not a space where residents frequently spend their time. One of the problems could be the visibility; this place was not visible from the residents' rooms and perhaps many residents did not even know of its existence.

This place seemed to provide a positive impression about the facility for visitors and staff members working in the offices. However, because they were not using this area, it seemed to have small impact on residents' lives. The two dogs that stayed at the entrance area during the day did so because staff members often gave them treats. In order to promote interaction between residents and animals, staff members had to encourage the dogs to stay where residents are located.

Candy Shop

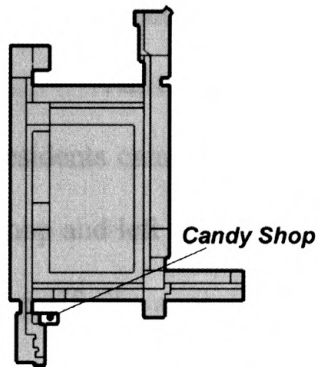


Figure 3.3. Candy Shop

Table 2. Candy shop use: Total records by percent by analysis

1. Staff members: 42%
2. Residents: 35%
3. Family members: 23%

Physical features

The candy shop is located next to the entrance. This shop carried candies, beverages, and varieties of small gifts. It includes a small coffee shop. There are five round tables and chairs in this space; the wall is painted white and decorated with harbor pictures. There are windows on two sides of the room each with white blinds.

One or two volunteers run the candy shop from 11:00 a.m. to 4:00 p.m. everyday, except for Sunday. The volunteers take orders and prepare light snacks, such as sandwiches, for visitors and staff members. They also serve free ice cream for residents.

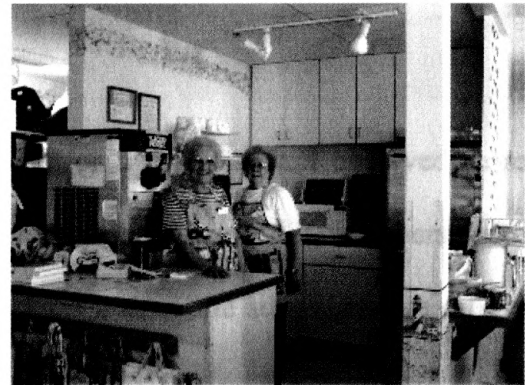


Figure 1.5. Volunteers at Candy shop



Figure 1.6. Coffee shop

Activities

Residents

All the residents in this facility could get one free ice cream cone a day. The same residents came and got free ice cream everyday. They came and ate it quietly at the coffee shop and left when they finished. One resident sat and ate her ice cream almost everyday by herself. She appeared to be left out from other people in the coffee shop. She just sat quietly and ate her ice cream. She did not look at anything other than the ice cream, quickly finished, and then returned to her room. Staff members and visitors seemed to enjoy spending time in the coffee shop, but I did not observe residents to be expressing the same level of enjoyment while in the shop.

Staff members

Staff members use this space for getting lunch or a light snack. I observed more manager-level staff than other staff members in this space. Fewer staff members were observed using the shop on the weekend than on weekdays, since the administrative offices were closed on the weekend.

Family members

Family members brought residents to the coffee shop attached to the candy shop and sat together. This space seemed to be one of the places for family and residents to meet and converse in addition to the resident's room, the courtyard, and the entrance area. Family members seemed to be more comfortable staying in the coffee shop than other public areas in the residents' wings. I observed that family members who visiting the coffee shop did not talk with other families.

Problems

Part of the floor is carpeted and another part is vinyl-covered floor. Between these two different floor finishing, a narrow metal bar is installed to protect the edge of the carpet. The gap is difficult for residents with wheelchairs to wheel over by themselves. I did not notice it as a barrier when I was walking but it was difficult for me to wheel over the gap when I used my wheelchair. Residents with wheelchairs in this type of living environment do not generally have enough physical strength to overcome this seemingly small barrier. This gap may keep residents from visiting.

In the coffee shop during my fieldwork, all the shades for the windows were usually closed. Instead of using natural day lighting by opening the window shades, the room lights were always turned on. Also, the noise from the refrigerator was very loud. Since this sound was always there, it became a part of the environment such that many people did not even recognize it as noise anymore. However, I observed that it was difficult for some soft-voiced residents, or anyone with a hearing problem, to converse.

Hallway 1

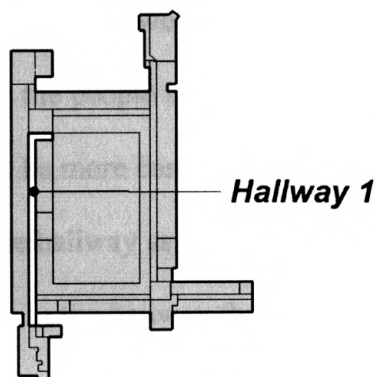


Figure 3.4. Hallway 1

Table 3. Hallway 1 use: Total records by percent by analysis

1. Residents: 59%
2. Staff members: 30%
3. Family members: 11%

Physical features

This is a long hallway with ceiling-mounted fluorescent lights along with some incandescent fixtures. The child day-care, the activity room, and two exit doors to the courtyard are located along this hallway. Potted houseplants are located along this hallway. Potted houseplants were hang on the wall next to every resident's door.



Figure 1.7 Hallway 1

Some residents kept their plants watered. The wall is painted pastel blue and has wide-white plastic handrails. The floor is carpeted to make this space quieter and homey. Children's voices from child day-care can be heard along this hallway. This hallway has the heaviest traffic among all five hallways. The peak use of this hallway is after breakfast. This is the only hallway that was used more by residents than staff members during my observations.

Activities

Residents

There were several residents who could be found at the same spot along this hall all day everyday. They observed the traffic in front of them. They liked to talk if and when they

made eye contact with others. They seemed to be waiting for someone to talk to them. Since all of them were sitting either in wheelchairs or the chairs along the wall, they tended to talk to the people who used wheelchairs rather than the people who were walking. They seemed to be more comfortable talking to people at the same eye level. Some residents walked along the hallway as a part of their physical therapy programs. Residents appeared to be happier to be in the hallway than in their own rooms. I also observed that residents usually stayed close to their own rooms.

Staff members

Staff members always walked fast along on the hallway. They seldom stopped to talk to residents on the hallway. Nurses and CNAs were constantly going into residents' rooms to respond to the nurse calls. There were more staff members in the morning than in the afternoon. After 2 o'clock, the number of staff was dramatically reduced on the hallway. Housekeepers clean residents' room in the morning.

Family members

Family members used this hallway as a route to other destinations. Family members greeted other family visitors and staff but not often residents. I assume that the eye level of family members and residents in wheelchairs were different which reinforced a lack of eye contact with residents and, in turn, the unlikelihood of greetings or conversation..

Animals

One dog (Artist) always stayed in this hallway. He slept at one resident's room along this hall every night. He mostly stayed at her place during the day. He came out and walked about several times a day. Since he was very quiet dog, residents walked to him and petted him often.

Problems

I observed glaring light from the end of hallway and from the ceiling lights. Next to the activity room door, there was a bulletin board for information and announcements for residents, however all the information was posted too high for wheelchair-using residents to read.

The Medicart used by nurses for storing and distributing medicine blocked part of the handrail that residents always use to maneuver. Although the hallway was wide, there were always cleaning carts and/or other equipment parked along the hall that made this hallway actually very narrow for residents to wheel or walk. The floor was carpeted but residents' rooms had vinyl flooring. As with the edge between carpet and tile in the candy shop, the gap between a room and the hallway made it difficult for residents with wheelchairs limitations to exit their room by themselves.

Hallway 2

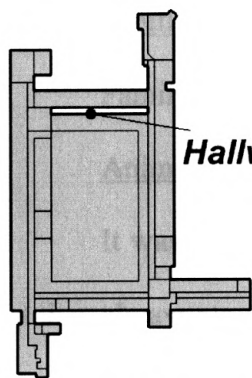


Figure 3.5 Hallway 2

Table 4. Hallway 2 use: Total records by percent by analysis

1. Staff members: 50%
2. Residents: 42%
3. Family members: 8%

Physical features

This hallway was not as long as other hallways. Relatively independent residents were living along this hall. The bathtub room accessed from this hallway but there were mostly resident's rooms along this hall. This place was quieter than other hallways.

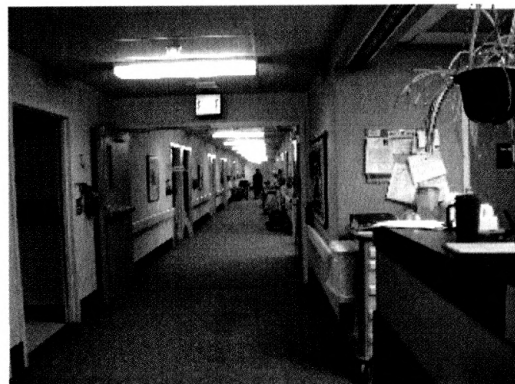


Figure 1.8 Hallway2

Activities

Residents

I seldom observed residents sitting along this hallway. They seemed to use this hallway just to get to their respective destinations. I observed more residents here in the afternoon than morning.

Staff members

More staff members used this hallway than residents. All the meals from the kitchen to the dining hall were pushed in a cart through this hallway. Staff members conversed more often in this hall than other places. I observed very few administration staff members in this

hallway. After 2 p.m., the number of staff members decreased.

Family members

Family members quickly go into the residents' room and did not stop in the hallway.

Animals

It was very unusual to see animals in this hallway. There were two cats in this area but they always stayed at their favorite residents' rooms. Cats seemed to have several favorite places and they rotate those places.

Problems

Humidity from the bathtub room was sometimes unpleasant.

Hallway 3

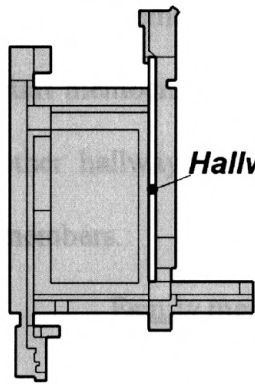


Table 5. Hallway 3 use: Total records by percent by analysis

1. Staff members: 53%
2. Residents: 40%
3. Family members: 7%

Figure 3.6. Hallway 3

Physical features

Residents' rooms are along one side of this hallway. The other side had the kitchen, the dinning room, the physical therapy room, and the break room for staff. The chapel is at one end of this hall; services are offered at 10:30 a.m. Monday to Friday. No plants decorate the walls along this hallway.



Figure 1.9 Hallway 3

Activities

Residents

Residents use this hallway in the morning more frequently than in the afternoon. They used this hallway only when they go to chapel service and to the dining hall. They usually stay in their rooms or gather around the nurse station.

Staff members

I observed more staff here in the morning than afternoon. Staff members used this

hallway more frequently than all the other hallways in this facility. I assume that is because the staff members' break room and staff entrance are along this hallway. I observed that many staff members stopped and talked to each other here, a situation which I did not observe in other hallways. However, I did not observe communication between residents and staff members.

Family members

Three family members came and fed their loved ones dinner everyday. They always pushed their family member in a wheelchair on this hallway to get to the dining room. The family members visiting in this area tended to stay in their resident's room. I observed many visitors in the evening in this hallway. Family members visited residents after the naptime which was after lunch until three o'clock.

Animals

One dog slept in a specific resident's room in this area. He mostly stayed at the entrance during the day and returned to this area in the evening. He also visited one resident's room every morning to wake her up and visited her in the afternoon everyday to ask for treats.

Problems

This hallway was darker than other hallways and there were no plants decorating the wall. The lack of both lighting and decorations made this hall look institutional, rather much like a traditional hospital.

A room called "the family room," is located along this hall. Family members did not use this room often, in fact I did not observe any family members in that room. Staff members used it for meetings or lunch. I believe that the location of this place was a problem.

It was not visible from any area that residents frequently use.

Hallway 4

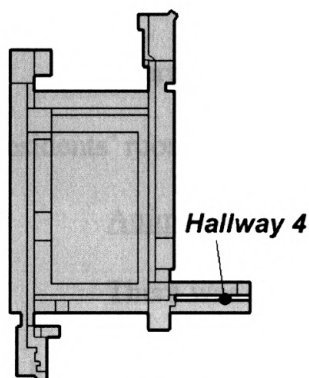


Figure 3.7. Hallway 4

Table 6. Hallway 4 use: Total records by percent by analysis

1. Residents: 57%
2. Staff members: 38%
3. Family members: 5%

Physical features

This area is for dementia residents. At the end of this hallway, there is a small living room area that included a rabbit in a cage. There was also a comfortable sofa, house plants, and handcrafts decorating the walls. Across from the living room, there is an administrative office.



Figure 1.10 Hallway 4

Activities

Residents

There were very few residents in this hallway. They were stayed mostly at the living room in front of the nurse station all day, except for meals and nap times. When staff members conducted activities, residents gathered in the small living room at the end of the hallway.

Staff members

Only the housekeepers and the staff who worked in the office at the end of this

hallway used this hallway.

Family members

There were almost no family members in this hallway. They mostly stayed at the residents' rooms when they visited.

Animals

There was one rabbit in the living room area. It was a small, very quiet, white rabbit in a cage.

Problems

There is a very bright glaring light from the exit door at the end of this hallway. It could create a disruptive effect for the residents with dementia or it may be a landmark by which they could orient themselves if they were able to recall it. This hallway was not visible from the nearest nurse station and staff members brought and kept residents in the living room that is in front of the nurse station. As a result, this hallway was always empty. I did not observe any residents' activities in this hallway.

Hallway 5

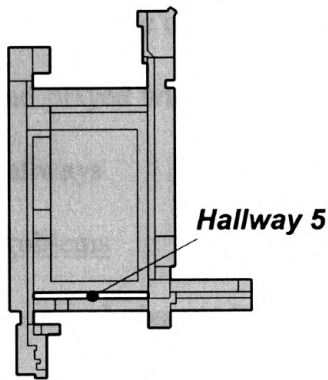


Figure 3.8. Hallway 5

Table 7. Hallway 5 use: Total records by percent by analysis

1. Staff members: 56%
2. Residents: 36%
3. Family members: 8%

Physical features

There is a hair salon, a small living room, and two staff offices along this hallway.

Activities

Residents

Residents used this hallway to go to living room 2, the hair salon, or going to the activity room. I did not observe many residents staying in the hallway during the day. Residents seemed to stay either in their rooms or in living rooms. However, on weekends, more residents sat along this hallway.

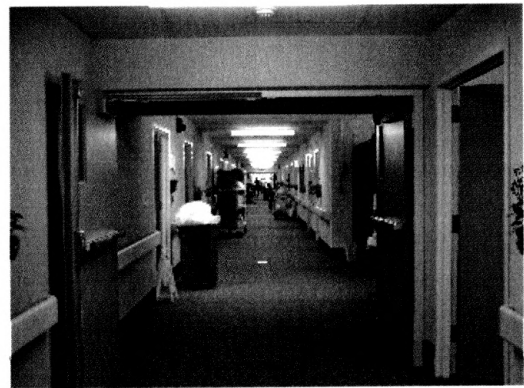


Figure 1.11 Hallway 5

Staff members

Many staff members used this hallway because it connects the administration offices and nurse station 2. Many staff members were observed in this hallway around 11 a.m. because staff helps to push wheelchair-using residents back to their respective rooms after chapel service. In the morning, staff members were recorded pushing large laundries and/or trash carts. Around ten o'clock the highest numbers of staff were observed in this hallway.

Animals

One dog stayed at one resident's room most of the time. He sometimes went outside and played with other residents. I observed dogs more frequently in this hallway than other hallways.

Problems

I observed that some residents waited in the hallway for their turn to get their hair done. The hair salon should have a space where residents with wheelchairs can wait comfortably for their turn.

Nurse Station 1

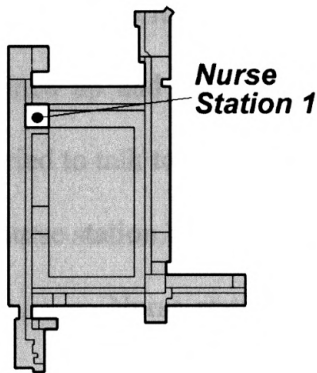


Table 8. Nurse Station1 use: Total records by percent by analysis

1. Staff members: 55%
2. Residents: 44%
3. Family members: 1%

Figure 3.9. Nurse Station 1

Physical features

Nurses at this nurse station watch over the residents in wings 3 and 4. The physical setting of the nurse station is conventional. The counter is high and painted with dark pink and white, it divides the nurse station from the hallway. Inside of the nurse station, there is a counter top desk for



Figure 1.12 Nurse Station 1

staff members to do paperwork and shelves to hold residents' charts. Nurses share five movable chairs. Medical equipment and medicines are stored in a locked storage room inside the nurse station. The nurse station is decorated with several potted plants and with hanging baskets.

Activities

Residents

Residents sat around the nurse station after breakfast. Some of the residents went to the chapel service around 10:00 a.m. to 10:30 a.m. Right after the chapel service, it was time

for lunch so there were not many residents sitting around the nurse station between chapel service and lunchtime. They came back and sat around the nurse station after naptime. They lined up and watched the nurses who were working in the nurse station. Sometimes, they tried to talk to nurses at the nurse station. Some residents seemed to like sitting in front of the nurse station but others were brought there by staff members to make their supervision easier.

Nurse stations were the center of activities in this nursing home. Even though the physical settings of nurse stations were not friendly, residents still liked to stay there. This was the place where residents could observe activities and action of others.

Staff members

This is the most frequently used space by staff members. Everything that staff members needed for their work was concentrated in this place. Nurses filled in charts, answered telephone calls, and exchanged residents' information in this place. The peak time of use was 2:00 p.m. After that, the number of staff members staying at the nurse station declined. Nurses stayed at the nurse station, the break room, or the smoking area.

Family members

Family members did not stay around the nurse station. Some family members came and talked to nurses, but I rarely observed family members who stayed at the nurse station.

Animals

One cat stayed inside of the nurse station every night. The cat stayed at residents' rooms during the day and stayed at one of the chairs in the nurse station at night. Cats also seem to like to stay in the place where activities were happening.

Problems

The design of the nurse station made this place look unfriendly and institutional. The

counter was too high for residents in wheelchairs. Because of the height, it seemed that residents were discouraged from talking to people in the nurse station. Two Medicarts were always parked next to the nurse station. Considering some of the residents' cognitive abilities, it could be dangerous because the medicines in the medicart were at the eye level of wheelchair users and easy to reach. The medicarts also blocked part of handrail on the hallway.

Nurse station 2

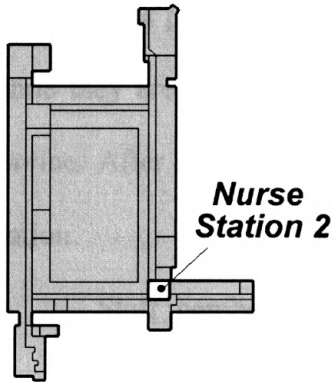


Table 9. Nurse Station 2 use: Total records by percent by analysis

1. Staff members: 52%
2. Residents: 44%
3. Family members: 4%

Figure 3.10. Nurse Station 2

Physical features

Nurse station 2 is smaller than the other nurse station. The counter in this nurse station was low enough for wheelchair users to be able to talk with nurses seated inside. This station also had the usual charts and medications. There were three baskets hanging from the ceiling. In the late afternoon, three dogs came and stayed around the nurse station every day. Nurses supervise the residents with cognitive impairments who gather in a living room across from this nurse station.



Figure 1.13 Nurse Station 2

Activities

Residents

The residents with relatively severe disabilities always stayed close to the nurse station. Two or three residents regularly sat right next to the nurse-station counter. They did not have anybody to talk to so they just looked at people around them. Half of the residents clustered at the nurse station came there spontaneously, but the other half, more or less, were

brought by staff members.

This place should have something for residents to look at, or entertain themselves, while they are staying here. Residents sat in this area from after breakfast until the chapel service. After 3 o'clock was another peak period for residents to cluster around the nurse station.

Staff members

This place had everything that nurses needed for their work. Nurses in this station watch over the residents with severe cognitive impairment. Many nurses stand in front of the counter and thus were able to quickly go to residents' rooms when the nurse calls are activated. Unlike the other nurse station, the number of staff working in this station was constant on weekends and weekdays.

Family members

There were more family members at this nurse station than the nurse station 1. Family members were there, mainly, for talking with nurses or with residents. The family members of the residents who require serious care seemed to stay longer than other visitors.

Problems

This place was cluttered with staff members, residents medicarts, and lifting equipment. The physical setting was that of a conventional nurse station and it looked institutional. While nurses were busy with their work, residents sat and watched other people who were stopped in front of the nurse station.

Dining hall 1

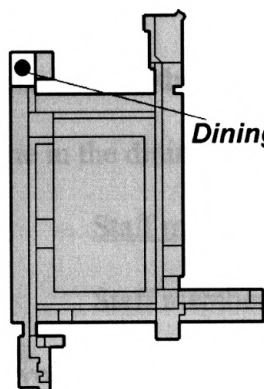


Table 10. Dining hall 1 use: Total records by percent by analysis

1. Residents: 86%
2. Staff members: 13%
3. Family members: 1%

Figure 3.11. Dining hall 1

Physical features

This dining hall is at the end of hallway 1. Residents in wing 1 and 2 take their meals in this place. Seating is at ten or so round and square tables. Three or four residents sit in each table. The dining hall has a vinyl-covered floor. The lighting is incandescent light from the ceiling. One side has



Figure 1.14 Dining hall 1

wall windows but artificial lights were always turned on. There are many plants in hanging baskets in this space. None of the animals in this facility are allowed to be in dining rooms. The material of the floor in the dining area is different from that of the hallway; this is beneficial for training animals to distinguish the places where they are allowed. At the entrance of the dining room, there is a birdcage with a number of small birds. This place was also used for large meetings because this room and the chapel are the only two large spaces.

Activities

Residents

Except for breakfast, residents were divided into two groups and each resident was assigned to a certain time for meals. They usually spend 30 to 40 minutes for each meal and went back to their rooms immediately after they finished. Residents did not come and spend time in the dining room other than at mealtime.

Staff members

Staff members did not use this dining room. The only staff observed were those who served meals for residents and those who were cleaning.

Family members

Family members rarely use this place. On weekends, I observed a few family members who would sit next to their resident.

Animals

Animals were not allowed in the dining room. They were trained not to enter the dining hall nor were they given food treats in this place, so they did not come close to this room.

Problems

The location of this dining room was a problem for some residents. For walker or wheelchair users, this dining room was too far for them to travel by themselves. They needed either to wait for staff members to pick them up or manage to get there themselves. Hallways were carpeted to make this place home-like, which made it a difficult environment for residents to wheel their wheelchairs or to maneuver walkers by themselves. The mixed odors from various foods was not pleasant and the ventilation system was inadequate to keep the air fresh.

Dining hall 2

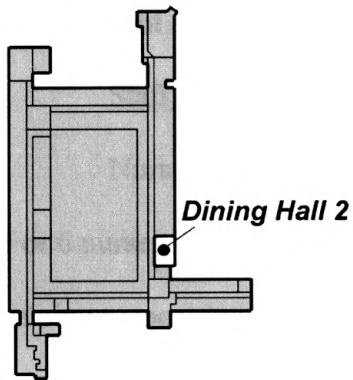


Figure 3. 12. Dining hall 2

Physical features

The residents in stations 3, 4, and 5 used this dining area. This dining room is located on hallway 3 and is smaller than dining room 1. Compared to the other dining room, the ceiling here is very low; artificial light is provided by ceiling-hung fluorescent lights. This room has a



Figure 1.15 Dining hall 2

view to the outside garden used by staff. There are many handcraft decorations on the wall to make this place look homey. One wall has a fireplace but it was covered and not in use.

Activities

Residents

Residents used this room only at mealtime. Usually, staff members brought residents to their assigned seats. Some residents in need of special equipment were assigned a seat wherever it could be found.

I observed three family members who would sit next to their loved ones and help

feed them every day. I did not observe much socialization among residents. They quietly ate and left right after they finished their meal.

Staff members

Nurses brought residents to this room and served meals for them. There were usually 5 or 6 nurses in the dining room during a meal. Staff members used this dining room only for helping at mealtime. After meals, dietary staff cleaned up.

Problems

This room was always very crowded with residents. Many of the residents who used this dining room were either severely cognitively impaired or physically challenged. Those residents required special equipment which took up a large space. This made it difficult for staff to find good seating for residents. At each meal, there were two groups: one started eating early and the other followed. Some of the late-group residents would line up and wait right next to the entrance. I believe there should be some comfortable waiting room for those residents.

Living room 1

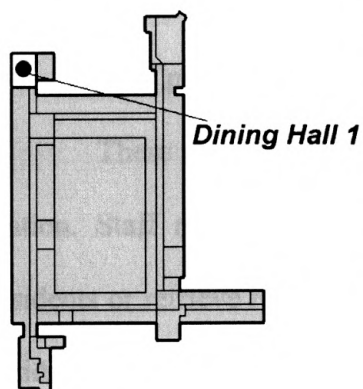


Table 11. Living room 1 use: Total records by percent by analysis

1. Residents: 94%
2. Staff members: 4%
3. Family members: 2%

Figure 3.13. Living room 1

Physical features

This living room is the largest one in the building. The floor is carpeted and the wall is decorated with plants and handcrafts. One side of this room has large windows that residents could look outside. There is a small television for residents and a piano for them to play. There is an aviary and a fish tank. All the chairs are comfortable, fabric-covered ones.

Activities

Residents

Almost all the dementia residents sat here during the day because staff members found it easier to supervise them. Many of the residents would sleep in their chairs in this living room. Alert residents did not seem to come to this space. There were too many people in this space.



Figure 1.16 Living room 1



Figure 1.17 Living room 1

Most of the residents were required to be in this space for safety purposes. After breakfast and dinner, many residents gathered in this place.

Staff members

There were few staff members in this space. Residents were watched from the nurse station. Staff members walked into this space when they needed to give medicine for residents or retrieve residents. Every evening, staff members provided activities for dementia residents. Then, night snacks were served and all the residents were put to bed.

Family members

I observed some visitors sitting next to their loved ones. Visitors tended to sit close to the hallway.

Animals

An aviary and a fish tank were located in this place. In the afternoon, one or two dogs came and visited residents sitting in this room. Three dogs stayed in this living room after 8:00 p.m., the time when lights in the hallways were turned off.

Children

The children from daycare shared a television from this room. Children came with their teacher to pick it up and later returned it. Children were usually very happy to be in this room because there were many different kinds of animals. They were also very curious about residents and tried to talk to them. The teacher did not seem to be cooperative if children tried to talk to residents when it was not a programmed activity.

Problems

Even though this place was large, it was always much cluttered with residents and staff. Once residents sat in a particular location, they did not have enough space to move. The chairs and

tables were set up along the wall to clear the center space. The furniture and organization made this place look institutional. The room does not accommodate wheelchairs well. Some residents always blocked the access to the aviary so other residents could not freely come and watch birds. It was the same situation for the fish tank.

Living room 2

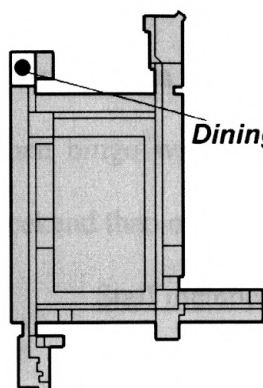


Table 12. Living room 2 use: Total records by percent by analysis

1. Residents: 89%
2. Family members: 7%
3. Staff members: 4%

Figure 4.14. Living room 2

Physical features

This living room is located on hallway 5. It is a small area with three couches and one television. One wall had large windows. Furniture in this place does not have an institutional appearance. Many plants hang in baskets from the ceiling and two birds live in this room. This living room is mainly used by residents and family members. This space is small enough that anyone in this room could enjoy conversation.



Figure 1.18 Living room 2

Activities

Residents

The same residents always sat in this area. Included were two couples and one male resident. One of the couples sat and held each other's hand all afternoon everyday. They watched television and people passing by them. The other couple always sat in front of the television and watched it. They did not seem to be talking to each other. A male resident sat

on the couch and watched people who were passing by him. This is the only place where residents came and spent their time spontaneously. There were more residents in the afternoon than in the morning. There were many residents here after three o'clock, except when bingo was scheduled in the activity room. There were more residents here on the weekend than on weekdays.

Staff members

Staff members did not use this space except for the housekeepers when cleaning. No staff members were observed sitting in this room.

Family members

This place was a break room for frequent visitors. Several visitors sat together and talked to each other. I did not observe residents and their family members sitting together in this space.

Animals

There were two birds in this space. Dogs and cats were passing by this space but did not stop.

Problems

This living room had windows, but the shades were always closed. The furniture arrangement divided this room into two areas so that active socialization among residents was difficult. Without other activities, residents sat and watched television all day here.

Living room 3

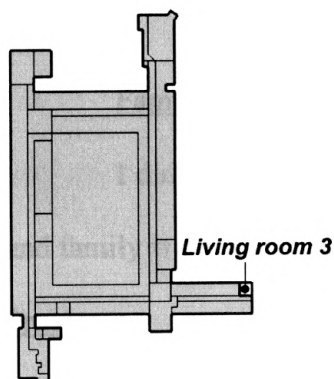


Figure 4.15. Living room 3

Physical features

This living room is located at the end of the hallway in station 4 where residents with dementia live. This space is decorated with the crafts and antique dolls to stimulate residents' memory. There are also comfortable chairs for residents. The walls are painted white and the space lit by fluorescent light. There is a rabbit in a cage in this space.



Figure 1.19 Living room 3

Activities

Residents

Some residents came to this space to check on the rabbit. Residents stayed there only when there was an activity for them. Some residents wondered into this space but they did not stay there.

Staff members

Staff members sometimes used this space for conversation with family members.

The only staff members observed in this space was those who had an office across the hallway.

Family members

I did not observe family members spending time in this space except for when staff and family were talking together.

Problems

This space was often not used. Residents used this space only when there was a programmed activity for dementia residents. This space appeared isolated and it was not visible from the main part of the building. The plain white walls made this space look institutional.

Activity room

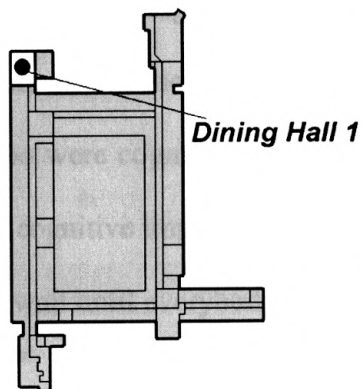


Table 13. Activity room use: Total records by percent by analysis

1. Residents: 78%
2. Family members: 13%
3. Staff members: 9%

Figure 4.16. Activity room

Physical features

The activity room is located close to the child daycare. This room has an exit door to courtyard. This room is a large room with space for 20 to 30 people. There was a mini-kitchen in order to prepare light snacks and drinks for residents and to clean up dishes. The room is white with



Figure 1.20 Activity room

fluorescent lights in the ceiling. There are two large metal tables with many plastic chairs. One side of this room has windows with a view to the courtyard.

Activities

Staff members

Staff members were observed in this activity room only when they have programmed activities.

Residents

This place was used mainly for programmed activities, such as bingo, story reading,

or coffee hour in the afternoon. Bingo seemed to be the favorite activity for residents in general. During the recreational activities, I did not observe much socialization among residents. In the activities that were offered by the activity department, there were few people who were cognitively alert, except during bingo. Many of the participants had some degree of cognitive impairment. Some of the residents mentioned that “it is wasting time for me just to wait until everybody comes in and sits down for the activity to be started.”

In the morning, a few residents used this room for reading newspapers or magazines. When this room was not used for activities, residents and their family members used it for private conversation. I observed that more family members used this space when the staff members were not there.

Children

In some programmed activities, children participated and enjoyed activities with residents. I observed that many children were curious about wheelchairs and tried to use them when the teacher was not around.

Problem

The biggest problem for the activity room was the distance from residents’ rooms. It was far from many residents living on other wings. Since most of the residents needed to use either a walker or a wheelchair to ambulate themselves, coming to the activity room was very hard. In order to come to this place, most residents required help from staff members. The activity room was located in the wing that has more independent residents compared to other wings. It was more difficult to participate in activities for those people who need more care. The activity room does not have to be the only place where residents could easily come and participate in activities.

Courtyard

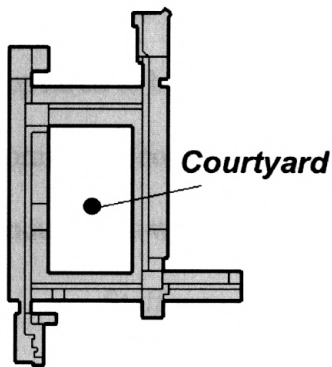


Figure 4.17. Courtyard

Physical features

The courtyard is located in the center of the building and is surrounded by residents' rooms. It has a rectangle plan and is mostly covered by grass. There are several large trees in the middle of courtyard which provide shade. It has straight concrete pathways that follow a grid. There are



Figure 1.21 Courtyard

three benches and a swing for residents and family members. There are several flowerbeds; some were raised beds that allow residents with wheelchairs to enjoy gardening. There was also a toileting area for dogs and cats.

Activities

Residents

Many residents told me that it was too difficult for them to go out to the courtyard. It was too far for many residents to reach the courtyard and there were many physical barriers for them. Only one resident went out regularly to the courtyard by himself. He used an

electric wheelchair which made it easy for him to maneuver and go over the gap at the doorsill. He spent 10 to 20 minutes while children were playing in the courtyard. He appeared to be enjoying watching children playing. One couple, both residents in this facility, sometimes could be found sitting in the shade in the courtyard. The wife pushed her husband about in his wheelchair. They always seemed to enjoy their private time in the courtyard.

Staff members

Staff member were rarely in the courtyard, except during events or for taking an animal out for toileting. If the exit doors were located at convenient places for staff members to use as a shortcut, more people could likely enjoy being outside.

Family members

Frequent visitors seemed to take their loved ones out to the courtyard in the afternoon. They usually walked along the pathway and sat on the swing for a while. One resident and her daughter took a dog out into the courtyard and walked together everyday. The visitors who stayed only for short periods of time seemed to stay at the resident's room and talk, instead of taking residents out for a walk in the courtyard.

Children

Children in the daycare played in the courtyard in the afternoon. They seemed to enjoy playing outside, especially around the water. They also liked to chase dogs around the courtyard.

Problems

This courtyard had three entrance doors from the building. One was from the activity room, which had a heavy sliding door and gap at the doorsill. Another door was at the end of a short and narrow cove area just off a hallway; some residents usually sat here

and blocked the exit door to the courtyard. The third door was from the family room and people did not use often. The exits were not located in obvious places for anybody to see, nor are there exit signs to the garden. Children always played in the courtyard but only a few residents were in the courtyard. The reason could be the very limited physical and visual accessibility to the courtyard for residents.

The material of the pathway was concrete but there were many gaps and cracks so it was not smooth enough for elderly residents to maneuver easily. The edge of the path should be clearly defined and raised to stop wheels if residents made a mistake in operating their wheelchairs.

Sunroom

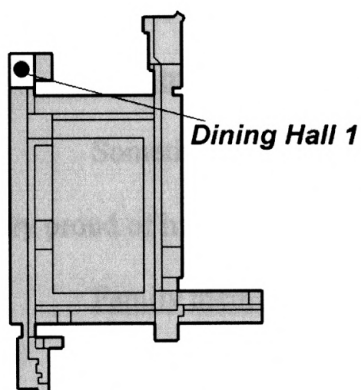


Figure 4.18. Sunroom

Table 14. Sunroom use: Total records by percent by analysis

1. Resident: 80%
2. Staff members: 13%
3. Family members: 7%

Physical features

This space is a newly-constructed area next to the dining room. It provides a living room for residents in stations 1 and 2. This place has exposed wood surfaces and seems “woody”. Two walls have large windows and received sunlight all day. There is a table with two chairs next to the windows inviting anybody to come and sit. The other side of the room has a television set. Three or four residents could always be found sitting in front of the television. Two birds, a rabbit, and many plants are in the room.



Figure 1.22. Sunroom

Activities

Residents

Same residents always stayed in front of the television. They did not come to this place spontaneously, staff members had brought them here. It was always the same people who sat here everyday. They stayed from after breakfast until lunchtime. Usually, there were

no people here in the afternoon. After the meal, some residents had a routine of checking the rabbit before they went back to their rooms. I observed fewer residents here on the weekend.

Staff members

Sometimes, staff members met here in the morning. Staff members seemed to be very proud of having this room, but not many people use it regularly.

Family members

I observed many family members coming here to check the birds and rabbit on the weekend. Many visitors were children who were very excited about holding birds and the rabbit. Some of the family members took their loved ones to this space to have a conversation on the weekend.

Problem

This place was a very nice physical setting but the location was a problem. It was not visible from the residents' wing. In order to get to the sunroom, everyone needs to go through the dining room. Most of the time, the dining room was closed because of cleaning activities so access to this space was also limited.

Researcher's experience of the life in an "Edenized" nursing home

Based on the researcher's experience of being a resident in this environment, the typical day of nursing home for a researcher was introduced in this section.

6:00 – 7:00	Getting up (grooming, dressing)
7:00 – 9:00	Breakfast
9:00 – 10:30	Physical therapy
10:30 – 11:00	Chapel service
11:00 – 12:30	Lunch
2:00 – 2:30	Coffee hours
4:00 – 5:30	Dinner
8:00 – 8:30	Bed time

6:00 a.m.

A female nurse knocked on the door and turned on the room light. She walked straight to the sink and prepared a wet towel with warm water. While she was preparing the towel, she told me to stay on the bed, so I sat up on the bed. She came with the towel and started wiping my face. She gently and thoroughly wiped my face with the wet towel. Since I was used to washing my face with plenty of water to clean my face and eyes, I was not satisfied with cleaning my face by just wiping with a towel. After she finished cleaning my face, she brushed my teeth. I felt so uncomfortable and helpless to have someone brush my teeth. I was just opening my mouth and looking at the wall. I was so uncomfortable that I could not look at her face at that time. I was also very embarrassed that I needed to accept having her clean my mouth without checking myself beforehand. When she finished brushing my teeth, she brought a small blue plastic bowl in front of my mouth. The bowl was designed to fit a human's face. She gave me a cup of water for washing my mouth. Then, I needed to

rinse out my mouth and spit into the bowl that was held by her. I guess it took about twenty minutes for her to wipe my face and brush my teeth. I assume that it takes much longer for the residents than it did for me because they have more physical problems than I do.

This whole process of brushing my mouth was very uncomfortable, I felt that everything about me was revealed. I tried to hide my feeling of being embarrassed and frustrated. However, tears were almost coming out from my eyes. The whole process of the grooming in the morning was so uncomfortable because I felt that my privacy was totally exposed.

Through this experience, I have realized that I took many things for granted in my daily life. I had my certain way of washing my face and brushing my teeth, which nobody could replicate exactly the same way. Since the routine was disrupted, I did not feel that I was clean enough myself to be ready for the rest of the day. I told her that I would like to put my clothes on by myself, at least. She smiled at me and left my room to give me privacy for dressing.

It would be so difficult for many residents to accept these types of help from the staff members in the beginning of their stay in Elim. I am very interested in knowing how residents adjust to this major change from their prior life. This experience helped me to understand the importance of assigning a permanent staff to each resident. I believe that it would be very difficult for residents to adjust to different staff members providing care each day. Assigning the same staff for one resident would help to ease their discomfort and promote dignity. If another person needs to be assigned for the resident, the residents should be informed in advance.

7:00 a.m. (Breakfast)

After the nurse left, I needed to wait until someone came and pushed my wheelchair to the dining room for breakfast. I did not know what to expect because I was not informed of anything by anybody. I was hoping someone would tell me what to expect next. I think it was about 30 minutes before another nurse came and pushed my wheelchair to the dining room where mainly dementia residents were eating. As we approached the dining room my wheelchair and I were parked in the hallway. The staff told me that she would be back soon and went into the dining room. I continued to wait for someone to come and push me in. Over my shoulder, nurses were loudly discussing where I should be placed. I felt that I was just an “object” that does not have any identity as a human being. I felt so helpless when I was there. Finally, a staff member came and pushed me into the dining room to park my wheelchair at a specific table. The staff asked me if I would mind sitting at that table. I knew that they had already decided to place me at that table so I just said that the table was fine. I appreciated that the staff informed me that I had a choice of where to sit and eat. However, I did not feel that it was my “choice” because it was not the way as people usually experience having a choice. I wondered what would have happened if I said “no” to them. It might have created another delay for breakfast. At this moment, I became quiet and just accepted everything, because I did not want to create problems

A nurse aid asked me what I would like to drink. I asked her what kinds of drink were available. She told me that I could have milk, juice, or coffee. I ordered whole milk. She brought me milk in a small paper package with plastic glass. She quickly opened the package and poured it into the glass in front of my face and set it on the table. I would have preferred they had served the milk already poured in the glass. I thought about the differences

between “bringing” and “serving” meals. I would like to have my meals “served,” not just “brought.”

When she brought me a drink, she asked me what I would like to eat for breakfast. I looked at other people’s plates and ordered a couple pieces of toast. Within a minute, two slices of toast were served in front of me. The pieces of toast were already spread with butter. I do not usually put butter on my toast. Because I did not want the staff members to think I was a complainer, I decided to eat, instead of telling them my preference.

When I ate, I needed to wear a white cloth bib around my neck. I was not comfortable with wearing it. But again, I did not want them to think of me as a complainer so I just decided to accept it. There were several different kinds of individually packaged jelly on the table for me to choose from. I finished my breakfast as soon as possible because I was already tired of sitting there and wanted to leave the dining room. I asked a nurse to push my wheelchair to my room. After breakfast, I was supposed to go to the living room with other residents but I did not go because I did not want to be in such a crowded place.

10:00 a.m.

After breakfast, I took a nap in my room because I had gotten up very early in the morning and was sleepy. It seemed to be a typical thing for most of the residents to do as well. Around 10 o’clock, an activity person came and invited me to chapel service. I was sleepy but I decided to attend the service, because I would not have anything else to do. She pushed my wheelchair to the chapel and parked me in the back of the room. The chapel service was scheduled to start at ten thirty but I was there around 10:05 a.m. There were already many residents who were waiting for the chapel service. Some of them were sleeping in their

wheelchairs. While I was waiting for the chapel service to begin, the pastor was playing music to entertain us. I felt so peaceful being there because I did not hear any unpleasant noise. It was such a relaxing moment. The atmosphere in the place was peaceful. There was nice music and soft lighting. When I attended the chapel service, I realized just how noisy the residents' rooms and the hallways were. I enjoyed the time when I could be away from all the noise outside of the chapel.

10:30 a.m.

The chapel service lasted about 30 minutes. Typically, there were about 50 people attending the service. The pastor preached for 10 minutes and encouraged residents to sing hymns. He carefully selected the hymns that were familiar for the residents' age. Surprisingly, residents sang very well. Some people were out of tune but they appeared to enjoy singing songs. I liked this activity very much because it was something meaningful for them, not childish activity. While I was sitting there, I enjoyed the warm feeling from the natural light from outdoors and the peaceful music. The great thing was that I could escape for a while from the busy environment elsewhere in the nursing home units. I think religious support for this age group is very beneficial because it may ease their stress and pain while they attend chapel service. Also, for many residents, attending church service was a common experience from their prior life.

Providing opportunities for residents to make connection to their past experiences can be challenging. Determining what was meaningful for each resident throughout his or her life is very important. When I attended the chapel service, I strongly felt that all activities should be meaningful, not childish. I felt that I was learning something important for my life through this chapel service. Living in a nursing home does not mean that residents are not

able to grow any more. Many residents had a strong will to live as meaningfully as possible. Spiritual support can be so meaningful for them because they can still learn from it.

11:00 a.m.

Lunch was scheduled to begin at 11 o'clock. Almost all of the 50 or so residents who attended the chapel service were taken directly to the dining room from chapel. When the service was over, there was an announcement for staff members to help push residents' wheelchairs to the dining room. About 15 staff members came to help transport residents. Since there were not enough staff members to help all the residents at once, many residents were forced to wait for awhile for someone to take them to the next destination. There were many residents lined up and waiting along the wall in front of the chapel. I was one of them. A staff member had pushed me out of the chapel and parked the wheelchair and me in the hallway next to the entrance of the chapel. She told me "I will be back soon" and started pushing other wheelchairs. Since I did not know how long it would take her to return, I was worried that she had forgotten about me. There were two wheelchairs parked in front of me, and two wheelchairs behind me. They were wheeled away after a few minutes, leaving me alone.

After about 5 minutes, a staff person realized that I was still waiting in the hallway. She pushed my wheelchair to the dining room and parked me at the table where a resident with dementia was already sitting. This resident was constantly spilling her food. She was staring at her food and eating. When I said "hi," she stopped eating for awhile and smiled at me. She seemed to compare her food to my food. She grabbed my bowl of strawberries and then ate them all in a short time. When she finished the strawberries, I realized that she had had strawberry sauce on her plate, instead of fresh strawberries. I felt sad to see her eating

my strawberries with big smile. I wondered why she could not have fresh strawberries. After she ate them, she quietly put the empty bowl back at my place. I thought it was at the same time, sad and such a funny scene.

There were four or five nurse aids in the dining room to help serve and feed the residents who required help. They were working hard but their work was not efficient because the work tasks were not organized. I thought they could provide better service and care if they established an efficient work routine for the mealtime.

While I was eating, several staff members asked me how the food tasted. They seemed to expect that I would say how badly the food tasted. It was not my favorite food, but it was fine for me. The staff members' attitude already made me biased about the food even before I tried. I had thought every staff member should encourage residents to enjoy their meals.

I was very uncomfortable with being fed by people who were enjoying their own personal conversations about their own lives. It only takes 30 – 40 minutes to help feeding residents in each meal. The personal conversation among staff members during mealtime should be limited. They should work as professionals. Talking to each other over residents' heads was not professional and made it difficult to request assistance. I felt very frustrated to require their help. After the meal, I had to wait another 10 minutes at the table to leave the dining room. I tried very hard to make eye contact with all the staff members to let them know I was ready to leave the dining room.

Noon

When I came back to my room, I did not have anything to do. I was sitting in the wheelchair and finally fell asleep. A nurse aid knocked on the door, which woke me up. She

told me that they would have coffee hour beginning at 2 o'clock. I said "yes" and she pushed my wheelchair to the activity room. I waited for everyone else to show up. I sat at the table and waited for a cup of coffee to be served. People were gradually brought into the room and placed around a large table. There was no special topic to discuss in this activity. People were chatting with other people and enjoying coffee. Basically, one person dominated the conversation and other people were just quietly sitting and drinking coffee. Every time, I attended the coffee hour, it was the same people who were dominating the conversation. I did not like the activities that were always associated with foods. I would prefer coffee hour to be a spontaneous activity rather than a programmed activity. Especially an environment that encourages residents to get together "naturally" to enjoy conversation with coffee would be a better solution.

3:00 p.m.

I returned to my room from coffee hour. People were watching television in their room and dosing in their chairs. Since I did not have TV, I was completely bored. I used this time to visit other residents. Typically, dogs were walking in hallways and visiting residents to ask for treats. By the time I finished having conversations with residents, it was usually about the time for dinner. My scheduled dinnertime started at 4 o'clock. I was always hungry by the time the dinner was served. Four o'clock was not the time when I usually eat dinner, but I was already hungry by 4 p.m. I guess it happened because I did not have anything else to think about in this living situation.

4:00 p.m.

The dinnertime for the first group started at 4 o'clock. A dinner of a main entrée, vegetables, and dessert were served everyday. The dietary department prepared two menus

and residents could choose one that they preferred. Residents spend 30 to 40 minutes for dinnertime. I did not observe any residents socializing during mealtime. Residents seemed to finish meals quickly and return to their rooms. One dog was always waiting for a resident right outside of the dining room.

5:00 p.m.

After dinner, residents go back to their rooms. Usually, they watched television in their rooms. Some family members were visiting their loved ones in the evening. I observed that the visitors in the evening stay longer than the ones during the daytime. People with dementia were brought into the living room for safety reasons. Nurses at the nurse station supervised them until the residents' bedtime. The living room was very crowded every evening. Half of the people in the living room were cognitively impaired. They appeared to be enjoying sitting in front of the television with other residents. I felt the evening was very long. Since there were no interesting activities offered for me, I read books in my room. My room was located at the end of corridor; consequently, almost no one passed by my room in the evening. I felt strange that I did not feel people's activities around me. I realized that seeing or feeling people's activities was one of the interesting and normal things for me in my daily life. I stood outside of my room two or three times just to see other people in the hallway in the evening.

Twice a week, there were games run by a young female activity volunteer at 6 o'clock. When I attended, she played Word Trivia with them. In order to entertain individuals with dementia, they played the game for about one hour. After the game, snacks, and drinks were served. They could choose their drink and snack (cookies, bread, ice cream, or jelly). Right after the snack, residents were sent to their rooms to get ready for bed. It was around

7:00 o'clock.

7:00 –8:00 p.m.

Usually, residents go to bed around 8 o'clock. Two nurse aids visit each resident's room to help him/her to get ready for bed. They help residents change their clothes. Before putting on nightclothes, nurse aids wipe the resident's body with a wet sponge and put body cream on the resident. Then, if needed, they help the resident into nightclothes,. This task took about 20 minutes for each person. Two nurses came and asked me if I would like to experience this whole process. I knew it would be an interesting experience for me to go through, but I was not brave enough to have this experience. I wondered how residents feel about accepting this service for the first time.

8:00 p.m.

The hallway light was now turned down. No residents or family members were walking in the hallway. Many residents were still up and watching television or reading books in their rooms. After 8:00 p.m., at least one nurse call-light was turned on and nurses were visiting the room to take care of residents' needs. Nurses told me that the nurse call-lights are always on 24 hours. Many residents do not sleep at night and keep turning on the nurse call light just to get attention from nurses. Dogs were always with one nurse, visiting resident's room with her. Cats stayed at the nurse station overnight and watched what was going on at the nurse station. Animals and people seemed to be comfortably sharing a space at this time.

Residents' environmental experience

Based on the observations and the multiple in-depth interviews with twelve residents, the meaning of place for residents in an “Edenized” nursing home is described in this section. In order to understand the physical environment with the Eden Alternative philosophy, the results from interviews were categorized into four themes and two subcategories.

1. Experience with animals
2. Experience with plants
3. Experience with children
4. Experience of living in an Edenized nursing home
 - a. “Do you like this place?”

“Do you like this place?” In this section, some parts of the residents’ dialogues are quoted directly in order to introduce their everyday environmental experiences as accurately as possible. Along with residents’ dialogues, interpretations have been added by myself.

The experience with animals

The residents had two different reactions in terms of having animals in this environment. Some people preferred having animals in the nursing home, and others did not.

For the residents who enjoyed having animals in the nursing home, animals were an important part of their life. Each of the residents who liked animals established a daily ritual routine of taking care of the animals in their lives. Some residents prepared treats for dogs that came into their rooms everyday. These residents appeared to be happy anytime dogs visited them in their rooms. Residents, who had animals visiting them often, seemed to feel special that animals chose to come and be with them. For the residents who liked animals, these animals were not only pets but also their friends who visited periodically.

The people who were negative about having animals in the nursing home had several reasons for not accepting animals in their living environment. Some residents were concerned about other residents' health, other people had trouble with having animals inside of the building. It did not mean that the residents did not like animals. They used to have animals outside of their house when they were at home. One resident was sympathetic toward nursing home animals because they needed to stay in limited space. She said that she would love animals if they were in the place where they were supposed to be. Even the residents who did not agree on having animals in the nursing home, they petted and played with them when animals came to them.

Of the many animals in this facility, dogs seemed to be the most popular with residents. Dogs had a favorite room to take a rest and sleep. Dogs walked around hallways and entertaining residents and staff members, but cats tended to be hiding in their favorite rooms during the day. There were many comments from both staff and residents that cats

were not as friendly as dogs. Cats did not like people to pet or touch them. On the other hand, dogs liked to be petted by people.

Having animals in the nursing home seemed to attract family members, especially the children. Residents were proud of talking about the animals in the nursing home to their family. On weekends, I observed residents and visitors looking for animals together. Having animals encouraged family members to visit residents more frequently and also stay longer.

Through the residents' comments about animals, the notion of personal space was implied. The notion of "inside" for them was in their room, not inside of the facility. Residents had a sense of control and responsibility in their rooms but not outside of their rooms. Having animals was not a problem for them, as long as animals were not in their rooms. In the following section, the comments of both the residents who liked to have animals in the nursing home and residents who did not are described.

Subject A: "she comes and puts her nose over my bed. And then, she pokes me with her nose"

Subject A: Every morning, Red (dog) comes around 5:30 or so and she comes and puts her nose over my bed. And then, she pokes me with her nose. Every morning she does that. I pet her for a while and she goes out. She is a nice dog.

Researcher: Does she stop by here several times in a day?

Subject A: Yes, she actually comes by several times a day. When she comes here, I pet her and baby her a little bit. And then, she goes out.

She described her ritual routine with animals, which was waking up with a dog every morning, and giving treats in the afternoon. She kept dog biscuits in her drawer and gave dogs treats every afternoon. One dog visited her room everyday and two other dogs stopped by several times a week. While Subject A was describing the dogs, she appeared to

be very happy and proud. The dog stayed only a short period of time but it did make her happy to have a regular visitor.

She also mentioned that she felt safe to have dogs in the nursing home because dogs could let people know if something was not right.

Subject A: You don't want a dog belonging to you who doesn't bark. She barks at night if she thinks something is not right. If someone steps in the door or something.

This comment indicated that the role of dogs was not only for entertaining but also providing the feeling of security for residents in this facility. It can be a normal feeling for anybody to have dogs in their own homes.

She also had birds in her room and talked about her experience with birds.

Subject A: I love these birds. I like to be watching them because they take a bath everyday and I talk to them. They are quiet when I am out. When I came back with the wheelchair, they seem to know that, and start to talk to me. So I talk to them every morning. I will not let anybody take these birds away from me while I am alive. We watch them very carefully. I talk to them and they take a bath in the little cup.

The birdcage was placed next to the television on the drawer. She cleaned the cage once a week with help from staff members. Anytime she went out and came into her room, she greeted them and the birds greeted her back. She knew the birds' habits so well and liked to talk about them to other people. These birds were good companions for her in her everyday life.

Subject B "I am happy with those animals"

Subject B seemed to be very proud of having three dogs visit her everyday. She liked to talk about the animals' behavior to staff members.

Subject B: Well, Red (dog) comes in regularly. Meggy (dog) comes in once in a while but she tries not to come in the door. But she will come half way to get treats from

me. And Beau (dog) every once in a while when Red is on duty at the main desk, then, the little white dog can come in. I am happy with those animals.

She did not go out to look for animals to play with, but expected them to come to her room in the afternoon. Even though dogs visited her different times everyday, she seemed to know when dogs were coming to her room. She kept dog biscuits for treats. Before the biscuits ran out, she made sure that she asked a volunteer to buy more dog biscuits for her. Three of the four dogs visited her and she prepared three different kinds of biscuits for each of them. When dogs visited her, she stopped doing everything and paid her full attention to them. She was in a wheelchair and had very limited physical ability, but opening her drawer to get few dog biscuits and bringing them to the dog's mouth was easy enough to manage. For the people with severe physical limitations, animals were great companions because animals came close to the residents spontaneously to be touched. I have also found that it is easier for residents in wheelchair to touch large dogs because the resident can touch them with minimum arm movement.

Subject C "I just love this dog."

Subject C had been friends with Artist (dog) for four years. The dog was mostly staying in her room during the day and sleeping there every night.

Researcher: How do you like this dog?

Subject C: I just love this dog. One day, he got lost and did not come back to my room for several days. It just broke my heart because he was lost. For several days, I just had a broken heart. Sometime, he wanders and sleeps at other places. But people find him. I have been with him for four years.

This dog was a part of her life. She spent most of the day looking at the dog and

talking with her. She appeared to be very worried, anytime she did not know where the dog was. The dog was a family for her. She was peaceful when she could see the dog. However, she became very anxious when she did not know where the dog was. She seemed to feel responsible for the care of the dog.

Subject D: "He sure comes to me every single day."

One of the dogs, whose name was Beau, stayed with subject D almost all day every day. The dog was a small white dog with a small bell on her neck. Beau was always with this resident. The dog even waited for her outside of the dining room while she was having meals. She always liked dogs in her life and talked about her four dogs, which her friends were taking care of for her.

Subject D: He (dog) adapted in here. I think I smell like a dog so he comes to me. He is a good little guy. He likes to sleep on the bed but he can't get up there so he sleeps under it.

Researcher: What is your favorite thing to do?

Subject D: I don't know. I just woke up with my dog.

Researcher: Do you play with him often?

Subject D: Oh, yes. He sleeps under my bed at night. I think he wants to get up on my bed but he can't get up there. So he has his own little bed down there.

Researcher: I guess you will miss Beau when you move out.

Subject D: I will miss him. I will pack him in my suitcase and take him home. "Beau" hi, sweetie. Hello little sweetheart. I don't know why he liked me but I guess I smell like a dog. Otherwise, I don't know why he still likes me, I don't know. He sure comes to me every single day.

She has established a good friendship with the dog. She seemed to be very happy that this dog liked her and stayed in her room. Since she lived with her dogs for a long time,

being loved by a dog seemed to be important for her.

Subject E: "I love it. I just love it"

A dog (Red) was special for subject E. The resident was in her thirties and suffering from MS. She lies on her bed all day because it was too painful to sit up. Her physical ability was very limited. She could slightly move her hands and fingers. There was a small mirror sitting next to her face. She could only see the view from the mirror. Anytime she wanted to see a different direction, she needed to ask the nurses to adjust it for her. Her room door was always closed because she did not like residents with dementia to wander into her room. When Red came into her room, she stayed close enough to touch the dog's face. Red was a very important part of her life in the nursing home.

Researcher: How long have you been friends with Red?

Subject E: I met Red last summer. She was in the other lady's room before but she decided Red makes too much noise, so one nurse introduced me to Red. Since then, she sleeps here every night.

Researcher: Does she make noise here too?

Subject E: No. She won't. Whenever she comes in, she comes over here to the bed and look at me. And I scratch her for a while. I do that for a while. And I talk to her about a lot of things. She lies down here on her bed.

The comment "I talk to her about a lot of things" reveals that this dog was more than a pet for her. Even though she could not talk with the dog, she still could communicate with the dog. She established trust with the dog and she might find it easy to express her feelings to the dog. This relationship could be very beneficial for her mental health.

Researcher: Does she sleep here every night?

Subject E: Yes. Every night.

Researcher: Do you know what time she usually comes in?

Subject E: Well, usually they (staff) bring her in by 10:30. If I don't see her by then, I put my light on and the girls go and get her. I make sure that they take her outside to go to the bathroom. I always know when she needs to go to the bathroom during the night.

Researcher: How do you get to know?

Subject E: I am lying here all night. She comes to the bed and puts her chin right here. She looks at me so I know when she needs to go to the bathroom. So I put my light on and tell them Red needs to go to bathroom. They take her out and bring her back here. It is funny but I know whenever Red needs something.

Being able to understand what Red wanted seems to make her feel special. She enjoyed providing care and being responsible in the environment where she was expected to receive care.

Researcher: Did you have a dog before?

Subject E: No, I have never had a dog. I never ever thought anything that I would be interested in having a dog. But a social worker came in and she asked me if I would be interested in keeping her. You know I really did not know, but I thought I could give a try. And I love it. I just love it.

Family members or staff members tended to decide whether the resident liked animals or not, based on the resident's past experiences. However, as she mentioned, some residents may like to have animals close to them when their living environment was changed.

Researcher: Do you think your life was changed since you met Red?

Subject E: Yes. I really really love it. And I know my daughter, she just loves Red. And Red loves my daughter. If both of them are in here, my daughter is holding Red's both pads. And she kind of dance. She will give her hugs. It is almost like Red gives her hugs too. It is funny. When animals know if you like them, they like you. They can tell if you like them. I think they can tell one lady is scared of them. They know that. So they do not go close to her.

Not only did she have a good relationship with the dog but also her daughter

established a relationship. Sharing common interest with her family members adds more joy to her life. This comment shows that she had respect and trust for Red. She also seemed to enjoy the unpredictable experiences with the dog.

Researcher: Was it tough for you to be living here before you met Red?

Subject E: I really did not know any different. But now, I look forward to Red coming here. All the dogs eat pigs' ears. It is expensive around here. My mom and dad live in a small town so I always ask them to pick up some pigs' ears from the hardware store there. I often call my mom "Mom, could you please pick up pigs' ears for Red?" And she brings them anytime she comes. So I always have got something in my closet for her.

Having Red in her room every night was giving her something to look forward to in her living situation. Without having the dog, her life could be difficult.

Researcher: When you moved in here, did you know that this place had animals?

Subject E: No, I did not. It was a coincidence for us to meet each other. It is funny. I would be laying here and at night the girl put me into bed and then they put a few snacks down for me. And most of the time I will be eating cashews. And Red, she wants something she is not supposed to eat. One night, I gave a cashew to her. I would normally be afraid to give a dog something. But I held a cashew in my hand, you know this tiny thing, I held it for her. She did come so gently and she took it. She knows that I am gentle with her, so she is going to be gentle with me.

Researcher: It would be very difficult for you to live here without Red.

Subject E: Yes. Red is a part of my life now.

Researcher: So do you think animal changed your life here?

Subject E: Yes, it does. When you walk in the door, there were the birds. And the fish tank, the fishes were just so easygoing and calm. I can never just pass by. I almost always have to stop and watch. Especially, the great big one. She probably eats the little ones.

It seemed to be difficult for residents to find someone to whom express their feelings in the nursing home setting. They seem to be afraid of being seen as complainers. She found

animals to share her feelings freely. Animals were good listeners for residents. Residents might have found peace and joy with animals in their otherwise unsatisfactory living conditions. They could feel the normal outside life by having animals in their lives in the nursing home.

Subject I: "She is pretty much my friend"

Subject I enjoyed having a cat in her room. She was not as active a person as other residents whom I interviewed. She liked to stay with the cat in her room and sleep. She always called the cat "my friend." The cat had her own chair to stay in the room during the day. Unlike dogs, cats were active at night and quiet during the day. The cat stayed in subject I's room most of the day and went out at night. The cat mainly stayed at the nurse station at night.

Subject I: Did you bring my cat? She didn't come home last night. And I have not seen her today so I was worried. Yes. I was hoping she would be here by now. She likes this chair so it is her chair now.

Researcher: What's her name?

Subject I: I shouldn't be having trouble with her name but I can't think of her name now. It will come to me. She used to stay at night, but she comes early in the morning now because there are nurses at the nurse station, so she stays there at night. And she comes here in the morning.

Researcher: Is she always staying here to sleep?

Subject I: Oh, yes. This is her chair. I don't even sit there because it is her chair now. And when she wants to go to bed with me, she jumps over. She jumps well.

The resident was worried about the cat anytime she could not see her for a while. She seemed to like staying with the cat in her room. She prepared a chair for the cat to sit in because the cat seemed to like staying in the chair. She seemed to enjoy having the cat in her

room and also felt special that the cat chose to come to her room every day.

Researcher: Do you play with other animals?

Subject I: I like them a lot. Sometimes, dogs come in here. They are friendly. The cats are not so friendly. She (cat) comes right in here when I am ready for bed. I am so glad she found me here. I should scold that she should not. I just love her to death. I missed this little face last night. I don't know what happened to her last night because she has never stayed out until that late. But I am so glad to see her no matter what. She is pretty much my friend. She loves when I squeeze her little paw.

Researcher: What do you think if you lived here without animals?

Subject I: I wouldn't know what to do.

She was attached to the cat and treated her as if it was her own child. Compared to dogs, cats were more independent and not so friendly to people. The cat came to her room when she wanted to be in the room. It meant so much for her to have the cat every night. Because the cat came to her everyday, she had something to look forward to every day. The cat was a part of her life in the nursing home.

Researcher: How do you like living with the cat?

Subject I: Well, it doesn't bother me. She may bother others but everybody likes her. Of all the people, she comes to me. I don't know why she does but she must like me. Do you like me honey? Do you like me? (*Talking to the cat*). She likes her paws squeezed. Not too hard though.

Subject I felt special to be chosen by the cat among other residents. She was also very proud of knowing the cat's behavior. Personal connection with the cat helped make her life in the nursing home more exciting.

Subject F: "There should not be animals in nursing homes. They are too dirty. I like them but not in the house."

On the contrary, there were several residents who did not like to have animals

around them in the nursing home. Subject F was in a wheelchair and a very active person. When I interviewed her, she was expecting to go back to her home soon. She had trouble with having animals in the nursing home because she was worried about animals' misbehavior and residents' health.

Subject F: There should not be animals in nursing homes. They are too dirty. Last night, I don't remember what time but the dog barked. It was right in front of my door, so I jumped because of that. And people are not very careful about pets coming and waiting for the patients. I can't think of anything that is dirtier.

She thought that animals were too dirty to be in the nursing home. In her comment, she called residents as "patients." I believe that she expected that nursing home environment should be a hospital-like sterile environment. I assume that she would not complain about having animals if she could feel that her living environment was clean. Maintaining cleanliness in an Edenized environment can be a critical issue for some residents who are not fond of animals inside of the house. The point, which she made about the carelessness of staff members when they deal with the animals, should be changed in this facility.

Researcher: Have you had any animals in your house?

Subject F: I had some but they were never in the house. They asked me when I came in here if I like cats and dogs, so I said yes; I like them but not in the house. Especially, where everything should be so clean, like the nursing home that has sick people. One time, a dog threw up in front of my door. One cat stepped up on the bookshelf in the TV room, and jumped down and hit the pillow with whiskers two times that I have seen it, the cat could scare somebody to death.

She mentioned that she used to have animals in her past experience. She liked animals but they should have been outside of the house. She was concerned about safety and health not only for herself but also other residents. Through her comment, a communication problem between residents and staff members was revealed. Asking her if she liked animals or not was not clear enough to inform her that this nursing home had animals in the building.

Since her expectation about a nursing home was a clean place for sick people, clearer communication about the philosophy of this nursing home should have been made clearer.

Researcher: So you don't want any animals around here.

Subject F: Not in the sick people's house. Because you can get diseases from dogs and cats.

She disagreed about having animals in the nursing home because she was afraid of getting diseases from animals. The interview with her also revealed that she had an impression about nursing homes as a "sick people's place." Her experience with animals in this facility was not a positive one because her expectation of a nursing home was different from what the "Edenized" nursing home was offering.

Subject G: "I do not like all of those in the nursing home. The further I am, the better."

Subject G strongly did not like to have animals close to her. She especially did not like to have the animals in her room.

Researcher: Do you like to have animals, plants, and children?

Subject G: No, I do not like all of those in the nursing home. No, but children are fine. They go to school. My roommate has a cat. I just hate that cat. And we have birds. I think it should be outside. I think it's fine for them to walk around but they should not be in here. I do not need any of them. In fact, they make me nervous. No, they don't make me nervous but I just don't like them.

Researcher: How about watching them?

Subject G: No. If I was home. I had a dog, which is just like one of the dogs, Red (golden retriever). That is the kind of dog we have always had. And I loved that breed of dog, but not in here.

Researcher: So, it has to be outside.

Subject G: Yes.

She used to have a dog in her house and liked it. However, she did not like to have

animals in her room. She did not seem to mind so much to have them in the hallway, as long as they were not in her room. She mentioned that her roommate had a cat in her room and she did not like it. When residents are sharing a room, the roommate's animals in the room could cause a serious issue for them.

Researcher: So you had a dog but it was outside.

Subject G: Yes, you bet.

Researcher: How about birds?

Subject G: Oh, I do not like them at all.

Researcher: So, you don't even want to have them in hallway either.

Subject G: Oh, NO. Not the cats, birds, nor the rabbits. No.

Researcher: Don't you want to be close to them?

Subject G: No, No. The further I am the better. See, the cat sleeps in my roommate's bed every night.

Researcher: Do you have any trouble with that?

Subject G: No, I do not have any trouble with it but I don't like it. It is not exactly like home for them. I think animals are happier to be outside. Space is just limited here and it is too small for them. I feel sorry for them. I just wish they were outside.

Researcher: I think they can go out to courtyard.

Subject G: Yes, they do. But that's not the same.

Researcher: Do you visit the living room?

Subject G: No, because they have birds there. I do not want to be close to them. I don't like the noise. If it is outside, it is wonderful but inside...no. We have a cottage by the lake. So we are used to the lake. So we are used to birds and fishes. But I do not want to have them inside of the house.

Researcher: How about the rabbit outside?

Subject G: They eat lettuce and all the plants in spring so I do not like them there.

She did not like any animals in the nursing home. She liked animals but she liked to have them outside where they could freely play. She felt sympathy for animals that needed to stay in limited place. She was not going out to look for animals, children, or plants to interact with, but she certainly enjoyed engaging with them if they came to her. She was not interacting with them positively but she was passively receiving benefits from them in her everyday life. In fact, she always smiled at animals and petted them anytime animals came to her. She did not have trouble living with them but she did not like to have them in the facility.

Subject H: “I think I am allergic to something in here because I feel like I am cold all the time here.”

Subject H had a single room and spent her time mostly staying in her room for reading and playing her computer. It seemed to me that she knew how to entertain herself in this environment so she did not require having companionship as much as some other residents.

Researcher: How do you like all the animals, plants, and children?

Subject H: I don’t like it too much.

Researcher: Would you prefer not to have anything here?

Subject H: No. I think I am allergic to something in here because I feel like I have a cold all the time here. My head and nose are stuffed up.

She was not positive about having animals because she was concerned about her health. For some residents who have an allergy to animals or plants, it could be difficult to live with them.

Researcher: Do you play with animals or plants?

Subject H: Not really. Animals are nice if they are in hallways.

Researcher: So you do not invite the dogs to come into your room.

Subject H: They do come in sometimes.

Researcher: What do you do when they come in?

Subject H: That's okay. I pet them and everything.

She also mentioned that she liked animals to be in this building but not in her room. Even though she said that she did not like animals in her room, she still enjoyed interacting with them if they came into her room. All the residents who described that they did not like animals in the facility did like to play with animals if animals came to them. They did not prefer having animals in the facility but did not mean that they did not like animals.

Subject J: "I think it is a good idea but everybody has to have their own animals."

Subject J was living in this nursing home for a month when I interviewed her. She was in a wheelchair but very independent. Since she was new resident, she had a different opinion about having animals in the nursing home.

Researcher: How do you like having animals in the nursing home?

Subject J: I don't see them often. I think it is good idea but everybody has to have their own animals. I was always afraid of animals because I could not run from them.

Researcher: So do you mind having animals here?

Subject J: Oh, no. As long as they behave.

I believe that she did not have opportunities to interact with animals since she moved into this facility. She seemed to be afraid of troubled behaviors that might hurt people. Considering the number of residents, the number of animals might not be enough for every resident to spend time with them. As she mentioned, it would be important that everybody

would have a chance to enjoy having a personal connection with animals.

The experience with plants

Compared to animals or children, no resident experienced difficulties with having plants in the nursing home environment. Many plants were introduced in this facility as a part of the “Edenized” process. The plants were mainly low-maintenance houseplants and I did not observe many flowers. Public areas, such as an entrance, hallways, living rooms, and the nurse stations, were decorated with many potted plants. Spaces were filled with green plants and made the place look less institutional.

However, residents did not seem to be interested in the plants which were outside of their rooms. They only talked about the plants they were taking care of everyday in their room. All the residents who kept plants in their rooms observed and knew their plants’ condition very well. They were also very proud of telling other people how well they were taking care of their plants.

In the interviews, the space issue for keeping plants in the residents’ room was addressed. Some residents received the plants from their family members. They seemed to like to take care of plants in their rooms, but they needed more space and support from staff members.

Subject I: “These are my daughter’s violets”

Subject I has kept African violets since she moved into this facility. The plants were well maintained and had nice purple flowers.

Researcher: Do you like an environment that has plants?

Subject I: Oh, yes. I like plants. I have those violets. I loved those flowers when I first came here.

Researcher: Do you take care of these?

Subject I: Oh, yes. These are my daughter's violets. They were dying out and started again.

She was very proud of keeping the plants for several years. Those violets were special for her because they were brought from her daughter's house. Keeping the plants in her room might provide her the sense of connectedness with her family.

Subject F: "I check them a couple of times a day. Oh, plants are nice because they produce oxygen."

Subject F: I water these plants. I check them a couple of times a day. Oh, plants are nice because they produce oxygen. I am trying to water it and take care of this one. It was sitting in the window, and it got so much sunlight. And it got almost all white. Now, I keep it back further and it is getting green again. And that one belongs to another lady. That is getting too big so I am going to ask her if she does not want to take some for cuttings. I don't know how many times I cut that one.

Researcher: Maybe you want to have bigger pot for it.

Subject F: No, I don't want any bigger pot. I think that is a good size for this room. My nieces take them home to grow.

Researcher: This looks really nice and healthy.

Subject F: I think I got the ideal place for these plants. I always like the sunrise and sunset.

She had a potted pothos (Scientific name: *Epipremnum aureum*) next to the window. The plants looked very healthy. She did not like any animals around her because she thought it was so dirty to have animals in the nursing home. However, she was very satisfied with taking care of her plants and keeping them in good condition. She could even share the plants

with her family, which seemed to make her feel even better. When she was explaining about her plants, she appeared to be very happy and proud of herself.

Subject E: "I think that it means a lot. I care about them"

Subject E: I think that it means a lot. I care about them. Even I have plants in my room, at my window. A begonia and another flower. That one I believe that I have had it since Easter. And it is still flowering. That one is from Mother's Day. Now, it got some flowers. Those are my favorite.

She had several pots of plants next to the window. She was not able to take care of them by herself because of her physical limitation. However, she cared for those plants very much. She asked staff members to water them when she thought they needed to be watered. Those plants seemed to be meaningful and very important to her. She told me that both plants were the present from her daughter.

Subject G: "I will keep good care of it"

Researcher: If you can keep it well, you will have more flowers next year usually.

Subject G: Oh, really. I will keep good care of it. You know, those were so pretty.

Researcher: What color were those?

Subject G: White. I am so glad that you have mentioned about it because I did not know.

Researcher: So do you like the plants in the house?

Subject G: Well, for some degree. I don't mind plants. I am on the plant team. When I was feeling better, I watered the plants in the hallway. But I could not do it anymore. And I can't do it. It is too much.

Researcher: So you water them in your room.

Subject G: Yes, I do.

Researcher: Oh, new leaves are coming from the bottom.

Subject G: Yes, I know it.

She watered every day to keep her two pots of plants. Both of the plants were presents from her daughters. She told me that she would like to keep them because those were meaningful for her. Even though she kept them in good condition, she did not know if they would have flowers or not. She was very excited when I told her how to maintain them. After this interview, she called me “Plants Girl” anytime she saw me. She observed subtle changes of the plants condition and talked to me about them often.

In order to encourage the interaction between residents and plants, more support from staff members will be necessary. As she mentioned, she did not know how to maintain the plants in her room. She also said that it was too tough for her to water the plants on the hallway and she gave up doing that. Introducing plants in a nursing home environment needs to be done with support.

Subject D: “My mother had plants but they were too much trouble sometimes.”

Subject D: Oh, yes, we had garden. Mostly my brother took care of that. I like to eat everything from there. I liked weeding. My brother and I really liked green onions. I suppose we were stinkers. We grew peas and beans and all that. We always grew corn too

Researcher: Do you take care of plants?

Subject D: I like animals but I had plants too. My mother had plants but they were too much trouble sometimes.

When we talked about plants, her past gardening experience was recalled. She talked about the memory of her mother and brother. She talked about her family and her past experience for a while, after we talked about plants. Taking care of plants seemed to be the

event which was related to her family.

In this facility, there were many indoor houseplants and many annual flowers in the courtyard. However, there was no plant that she had grown with her family in the garden. Planting the plants which are familiar to them can be beneficial for residents to reminisce about pleasant times and also to draw their attention to interact with plants.

The experience with children

There were not many spontaneous interactions between residents and children from day care. The activities with children were programmed, such as recreation activities with elderly residents at the activity room or in the chapel. I have heard that there used to be a program where children visited residents' rooms in the summer time. Residents seemed to enjoy observing or playing with children. However, their physical strength limited their access to the place where the children were playing. Residents interacted with children only when children came to visit them.

Children seemed to be curious about the residents, especially the residents with dementia. Children wanted to be close to residents and talk to them, but teachers were sometimes too protective about the children going and talking with residents. I believe that teachers have to be the ones who encourage children to interact with residents.

The residents, who attended activities, spent time with the children. However, the residents who were not attending activities did not have much opportunity to interact with children. Many residents seemed to be enjoying interacting with children, but some residents did not like to deal with the noise caused by the children.

In terms of noise, the sound from child daycare was pleasant and made the nursing home environment lively. However, some residents did not like to have activities with children because children became too noisy when they got excited. Residents who did not have cognitive impairment liked to read books or watch television in their rooms. When children screamed or cried, it became an unpleasant noise for residents. It seemed to be disturbing residents' quiet time.

In order to encourage spontaneous interaction between residents and children,

designing an appropriate environment would be important. Designing the space where residents and children could meet informally with each other in everyday life can be one of the key components. Other thing would be to create common spaces that residents and children could use together in daily life, such as a shared dining or living rooms.

There were two different opinions about having children in this facility. One was positive from the people who like to interact with children and the other was not positive about being with children.

Subject A: "They also try to bring children here a lot"

Researcher: Do you play with children?

Subject A: Oh, yes. They take children up to the chapel. They also try to bring children here a lot. I went to church and we had a birthday party this afternoon. It was very nice. Eight or nine people had birthdays this month. They had cake for each individual. It was a lot of people there. They usually have gifts and we make birthday cards, and children from daycare sing song for them.

Subject A would like to get together with many people and she enjoyed the activities with children. Having children sing for residents at the birthday party provided pleasure to residents.

Subject E: "They could not wait to come in here. My room was the favorite."

Researcher: How do you like to live with children?

Subject E: During the school year period and all summer, kids kind of offer to play with you. But these kids are younger than school age. They come in every Tuesday. They come and show me things. They brought a little tiny thing to show. They

were so proud. I will never forget about two or three weeks in a row, this one little boy, he just wanted to come. That was Tuesday. I think there were five kids in a bunch. I think my group was the wild ones. They could not wait to come in here. My room was the favorite. I don't know why, but they always liked me.

She could not get out of her bed, so children visited her room periodically. She remembered the detail of every moment with daycare children when they visited her room. She kept the children's pictures next to her family's pictures on the wall. She seemed to be very proud of being the children's favorite person to visit. I believe that the feeling of being loved by children made her feel special.

Subject I: "they are very cute and I can see them"

Researcher: Do you play with the kids sometime?

Subject I: They usually come. I like young kids. My niece's granddaughter is just 15 months old. She came often to see me. She is so cute. And some of the girls and boys in daycare, they are very cute and I can see them. I have many relatives come and visit me and they always bring kids. I am just blessed with my wonderful relatives and friends.

Seeing children seemed to be enjoyable times for subject I. She talked about the children of her relatives and friends. Having children visit her seemed to make her feel special. On the other hand, there were some residents who were not always excited about spending time with daycare children.

Subject F: "they are too noisy sometimes"

Researcher: Do you like to live with children?

Subject F: I think so, but they are too noisy sometimes.

She enjoyed watching children but did not play with them. She watched children

when she liked to do so. However, she did not want to be distracted by a noisy environment.

Subject H: “they are a little noisy sometimes”

Researcher: What do you think about children?

Subject H: I think it is okay, but they are a little noisy sometimes. That is the problem with children. I have never had any children of my own. So, I like to be in peace and quiet. I think most of us, as you get old, we like to have little more quiet time. With the kids, they are not quiet because they are too busy with their own activities.

She mentioned about the noise caused by the children. She enjoyed having a peaceful and quiet environment. She did not like to be disturbed by noise. She did not go out and look for children to interact with, but I observed that she enjoyed playing with children on several occasions. Keeping the balance between interacting with children and keeping the noise level under control can be an issue when having children in the nursing home.

Candy Shop

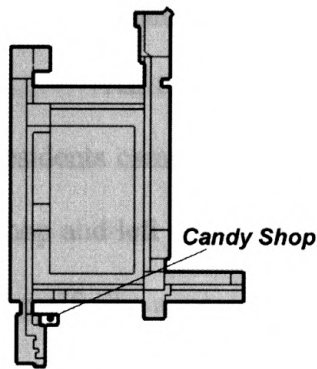


Figure 3.3. Candy Shop

Table 2. Candy shop use: Total records by percent by analysis

1. Staff members: 42%
2. Residents: 35%
3. Family members: 23%

Physical features

The candy shop is located next to the entrance. This shop carried candies, beverages, and varieties of small gifts. It includes a small coffee shop. There are five round tables and chairs in this space; the wall is painted white and decorated with harbor pictures. There are windows on two sides of the room each with white blinds.



Figure 1.5. Volunteers at Candy shop

One or two volunteers run the candy shop from 11:00 a.m. to 4:00 p.m. everyday, except for Sunday. The volunteers take orders and prepare light snacks, such as sandwiches, for visitors and staff members. They also serve free ice cream for residents.



Figure 1.6. Coffee shop

The experience in an “Edenized” nursing home, “Do you like this place?”

Residents had good impressions about this place. However, this place seemed to be where they needed to be rather than where they wanted to be living. In fact, some residents mentioned that they would rather be at home. Their home was always the best place to be, but this place was the “second best place” for them. Because residents in nursing homes generally have severe physical limitations, they need to compromise their living environment with their physical requirements. Compared to other options, they thought this facility was a nice place.

Some residents mentioned that they liked this place, but did not like the physical setting. Those comments revealed that they liked a non-designed environment, such as people, living things, atmosphere, or culture. Staff members in this facility seemed to be a main reason that residents liked this place. Also, animals and plants contributed to make this place a meaningful and pleasant environment for them. In terms of physical environment, the distance from residents’ rooms to the dining room and the rehabilitation room seemed to be problems for them. For the residents with either wheelchair or walker, a carpeted floor was an obstacle for ambulating themselves.

Subject A: “If you have to be in this kind of place, this is nice”

Subject A: Yes, sure I like this place. I think you have to be in this kind of place if you can’t get out of a wheelchair and you get something to eat and a place to sleep. I like it. I like it here very much. I thought it was very nice. I don’t know what it was but I felt a nice feeling here. If you have to be in this kind of place, this is nice. I have good social security because I worked for a long time. But if you had to do your own expense, this is an expensive place to be.

She said she liked this place but it did not mean that it was her favorite place to live. It seemed that she needed to accept this living condition because of her limited physical

ability. This place was not her favorite place to be but was the second best place for her among all the options she had. As other residents also mentioned, she thought that it was an expensive place to live. She felt guilty to be living in the nursing home because she felt that she was spending too much money for herself.

Subject B “I like it because dogs like me. if you have to be in this kind of place it is okay”

Subject B: Because dogs like me. If you know you have to be in this kind of place, it is okay.

Researcher: Why do you like it?

Subject B: First of all, the dogs. I like this place. Once in a while I need to get my pills and stuff but I like the CNA staff. They are the most patient people I have ever seen. They are almost as good as my dogs that I had to put to sleep. When I come to the place, Red has to come and wait in front of one drawer because that's where his treats are. She comes in and puts her nose to see if there are still plenty there. And she waits patiently. And when only Red is under the main desk, and then little Beau comes in because it is Red's territory. But Beau can come in when Red is at the front desk. And he gets his treats. I need to break the biscuits up smaller. He likes it. And Meggy, she only stands outside of the door. And then, if I beg really hard to her, she comes to stay close to me. And I get her a milk bone. That's kind a nice because if you hate everybody with two legs, you still can like things with four legs.

She liked this place because she enjoyed living with animals. She found the place where she felt that she was loved by others, such as animals or staff members. She respected the staff members for their help. However, she also had the feeling of acceptance to her current living condition because of her physical limitation. From her attitude, I observed that she was trying to create a comfortable and supportive environment for herself.

Subject E: “I would rather be home but this is probably a good place”

Researcher: Do you like this place?

Subject E: No. What I have heard was that it is the best in this area.

Researcher: Do you like this place?

Subject E: I don't know any other places.

Researcher: Are you comfortable living here?

Subject E: I would rather be home but I guess if I have to be somewhere, this is probably a good place.

Researcher: Have you had any difficulty adjusting yourself into this environment?

Subject E: I just was not sure. I had some kind of uneasy feeling because all kinds of things were just thrown upon me so quickly when I was coming here. My family pretty much decided that this was where I needed to go. I did not like it that they made a decision. But after, it did not take too long, I just got used to it. My first roommate was not the greatest. But after I got in with the second roommate, she was very nice. And her husband was so friendly, he came here everyday. And then, I met Red. It changed my life.

She was not sure if she liked this place because she did not know any other places. She also felt uneasiness because she did not have control for deciding her living situation. She thought this place would be the best place for her because people said that this place was a nice place. From her comment, I observed her feeling of disappointment for her living situation. She preferred to live at her home, but she accepted this living environment because of her physical limitation. In order to ease her feeling, animals seemed to be helping her to stand living in this environment.

Subject J: "It is okay because food is good and everything is clean"

Subject J: I think it is okay.

Researcher: Why do you like it?

Subject J: Well, people are kind. Food is good. Everything is very, very clean. What else is there to ask for?

This place was acceptable for her to live in. Her expectation for a nursing home setting seemed to be a hospital-like setting. In that sense, she liked this place because of the clean environment. She did not seem to have any emotional attachment to this place.

Subject F: "It is all right but I like to be home"

Subject F: Well, I think this is the best place in Fargo. Everybody says so. Well, it is all right if you have to be here, but I like to be home.

Researcher: What do you think about your room?

Subject F: Oh, this room is the best room in this place. With the beautiful windows, I can see people coming and I can see them going. And then, if I can't see it is because of all the reflections in the window and reflection on the picture, which I think it is the worst one to have a place like this.

Researcher: Do you prefer to have your room face to outside rather than courtyard?

Subject F: I want to see what is going on. That's why I like my apartment so much. Some people think more of their animals than do their own kids, which I think it should not be.

She thought she liked this place because other people told her that this place was one of the best places in this area. She also liked her room because she could see what was going on outside through her window. She wanted to stay connected with the outside world rather than animals in this facility.

Subject I: "I like people but the room is too small"

Subject I: Yes. Nurses are very nice. It has got some good ways and some bad ways. I should not say that. My room, it is supposed to be bigger.

She liked this place because of the people who were working in this facility. In terms of physical environment, she did not have positive opinions, especially for her room.

Subject C: “This is not my favorite place because of the physical environment. But I like dogs.”

Subject C: Well, this is not my favorite place because I have to look out for myself all the time. I like dogs, especially Artist. He is such a pretty dog.

She liked this place because she had her favorite dog around her. However, she did not like the physical environment because it was not easy for her to get around.

Subject H: “I like people here but do not like the physical environment. I did not like it because people helped me all the time”

Subject H: I like it pretty well. I have been here for four years now.

Researcher: Do you remember the first day when you moved in here?

Subject H: I did not like it because people helped me all the time. I had always been independent. I got used to it now but I did not like it then.

Researcher: Can you tell me why you like this facility even though you do not like the animals?

Subject H: I like the people who work here. I like to do things for myself but if I can't, I just need to accept help. I think my room is kind of small but this is not so bad because this is a private room. But the double rooms are too small and beds are too small too. The bathroom is awful for people like me. You can't turn with a wheelchair. I have to go in forward and back out.

Living in a single room was an important factor for her to like this place. The answer could be different if she were living in a semiprivate room. She mentioned her frustration of accepting help from staff members when she moved in this facility. Living in this environment for a long time seemed to ease the frustration. People and services are important factors for residents to feel comfortable with living in nursing homes. In terms of the physical setting, she complained about the bathroom. For living in a nursing home as a resident, the bathroom condition is critical to everyday life.

Subject G: “I like people here but not the physical setting”

Subject G: Oh, they are very good for you here. They try to help you. So, I do not try to help myself very much. I would rather read. But I can't read all the time either. So I would try to walk with my walker. However, physically, the environment here is very tough on you. I think so. Staffs are very good though, in their job. But I don't like their job. But I do admire them. And the nurses do everything. This nurse is my special friend. She is really good to me. They are all good.

She seemed to like this place because she was satisfied with all the help that she was receiving from staff members. People seemed to make this place enjoyable for her. However, she did not like physical environment because it was not easy for her to get around with her walker.

Subject D: “I like people here but I don't feel like home”

Subject D: Yes, they are very good and nice with you. The people are always very nice for you. Yes. I like it. But I don't feel like home. I like this room but it is not like home. But they are nice in here. The people here are very nice.

She also mentioned about the people when I asked if she liked this place. She did not feel at home living in this facility, but she liked to live there.

Experience of being at home: “Do you feel at home?”

Although residents liked this facility, they did not feel like it was “home” being in this environment. Based on the comments made by residents, I found that the feeling of home seemed to be associated with what they had enjoyed when they had been living in their own home. The things that they talked about were varied. Some residents mentioned about their house and furniture, others mentioned their family and pets. They might want to be engaged with the things which are familiar with them. When they moved into this kind of living alternative, they needed to give up all the daily routines that they had established over a long time. Then, they needed to start living in an unfamiliar place with unfamiliar people under limited privacy.

The residents who lived in the single room seemed to feel at home more than the ones who were sharing a room with a roommate. The reason could be that the residents in single rooms had more sense of control over their daily lives compared to others. Through the interviews, I learned that residents tried to make themselves satisfied with their living situation because they knew that they would need to live in this place.

Subject A: “You don’t feel like home but you are satisfied.”

Researcher: Do you miss your home?

Subject A: Well, you are in the situation with nothing else to hope for, I have to take it. I don’t feel like it is home but this is my home because I have my bed here.

Researcher: Do you feel at home being here?

Subject A: No. You don’t feel like home but you are satisfied.

Researcher: What do you have to have to make it home for you?

Subject A: Well, I will be able to do something and my daughter and I can live together. I

can wash my clothes. Of course, I did have a washer downstairs so I needed to go back and forth. That made her worried. I didn't worry, but she did so much. I don't mind to fall on the floor because I could manage that. If I go home, I go downstairs and have some coffee there. I said it is downstairs because everything seems to be downstairs. I guess I will go home if there is some place where I can be. My daughter comes and takes me out for a while. I would like to go home when she comes. But I know I have to be satisfied here if I stay here. I have to be satisfied with this size of room because that's going to be it.

This place was not her favorite place to live, but she seemed to be creating the best environment for herself in this living condition. I felt that she was trying to make herself satisfied with her current living situation, but she was never quite satisfied. She needed to compensate her physical ability with her living condition. From her comment about home, two different meanings of home were addressed; one is where she had her bed to sleep, the other one is the place where she could live with her family and enjoy having coffee. The first one was the home that she expected from the nursing home environment, and the second one was the true meaning of home where she felt home. From her comment, taking care of herself seemed to be the most critical issue that will make her feel at home.

Subject B: "I feel home all right. / I didn't miss it [home] much until I sold the place"

Subject B: Yes, I feel at home all right. But my roommate sometimes gets a little noisy. But I try to shut up and try to shut my visitors up, so that she would not be upset. But I haven't got communication much with her

Researcher: Do you miss your own home?

Subject B: Well, I didn't miss it much until I sold the place. I took a picture of it with the pink apple blossoms. Those were blooming in the front.

Researcher: Could you please describe what it is that makes you feel like being at home here?

Subject B: Well, you see the model of Elim is service. And they don't get upset at you for what you do yourself, because sometimes it is hard. Yet, they do what they

were told. They are sweet kids. They are really nice kids. Of course there are bad heads too. But overall, they are awful nice because they don't hold the staff against you. The next time around, they try extra special to be sweet.

Researcher: Do you mean that people make you feel like being at home here?

Subject B: Yes, I think so. They can do all the procedure and everything and not bother you. Some of them do it better than others.

When she talked about the feeling of being at home, she started talking about her roommate. She did not have control over her room because she shared a room with her roommate. She said that she felt home all right, but she might not really feel at home because she did not have a sense of control for her room. She said that home for her was a quiet place where she could invite her friends and have a conversation without worry.

She mentioned that she did not miss her home until she sold it. Since the house was always available for her, she might not realize the importance of it until she lost it. A sense of ownership could be the main factor for her to feel at home. After she sold the house, she did not have anywhere else to go except staying in this nursing home. She knew her situation and tried to create an enjoyable atmosphere around her. People liked to come and talk to her and she was enjoying her life in the nursing home. People around her seemed to be a very important thing for her to feel at home.

Subject F: "I like home better. I don't think they will ever get me into a nursing home again."

Researcher: Do you miss your home?

Subject F: I was home this weekend and I will go back on Monday to see if it will work.

Researcher: So you are ready to go home.

Subject F: Oh, yes. I can hardly wait. Number one is that it is noisy around here. Number two is that my roommate has to get up every two hours at night. Of course I wake up then. She goes back to sleep but I don't. So now, I go to the bathroom

every two hours. That is a bad habit.

Researcher: Do you feel at home being here?

Subject F: No. When I think about my good apartment, this is not home.

Researcher: Why do you think you don't feel home here?

Subject F: Well, because it is so much nicer at home. I've got a real nice apartment. It is on a busy street so I see cars and the mall and I can see way downtown. When the snow starts, I can see how bad it is without going out. Even the therapist that went home with me, she was just amazed how nice the apartment was. She sat next the windows two or three times to look out.

Researcher: Could you describe what makes you feel like being at home?

Subject F: Well. I don't think you will ever feel at home in a nursing home. I don't know if you talk to other people what they think, but I am going home. But some of them have been here so long, so it is actually their home here. No, I like home better. I don't think they will ever get me into a nursing home again.

Researcher: Could you describe why?

Subject F: I just don't like it. You can just look at the dogs and see how intelligent they are. But the food is good.

She was ready to go back to her apartment when I interviewed her. Her apartment was a home for her. She did not feel at home in this facility because she liked her apartment better. Also, she was able to go back to her home. She described the limited sense of control over her life, such as noise and her roommate's behavior.

She seemed to like watching activity and the busy street. Home for her would be the place where she could feel connected with the outside world.

Subject C: "I think so because I have artist [dog]"

Researcher: Do you feel like home here?

Subject C: Yes, I think so because I have Artist.

She felt at home in this place because of her company. Having a favorite pet helped her to feel like at home in this place. She did not mention any physical things in terms of making her feel at home. Personal connection with living thing seemed to be beneficial for some residents to feel comfortable in the nursing home.

Subject H: "I feel like home here because I have been here for four years."

Researcher: Do you feel like being at home here?

Subject H: Yes, because I have my own things here. I have my computer here.

Researcher: Do you miss home?

Subject H: No, not so much. I feel like home here because I have been here for four years.

Researcher: What makes it comfortable for you to live here?

Subject H: I think the people and they have good food here.

She felt at home in her room because she had her personal things in her room. Also, the length of stay in this facility helped her to feel at home. One of the reasons why she did not miss her home could be that she did not have living family members and she sold her house before she moved into the nursing home. Therefore, she did not have the feeling of attachment to her previous house. She mentioned the people and food as a factor of having a comfortable life.

Subject G: "No. Not [feel home] much. I want to have all my things around me"

Subject G: Oh, you would have loved my house. It had four bedrooms and a beautiful dining room, bathroom, piano room, and kitchen. It was very nice.

Researcher: Do you still keep that house?

Subject G: No, it was for sale. Because I can't go back there. And it is not good for

keeping it for wintertime.

Researcher: Really, because of the cold?

Subject G: And the house depreciates so we were going to let it go. I love to go home. But I can't go home unless I have somebody with me. And I don't want to try to find somebody to live with me. I am a pretty much my own person and I don't mind being alone. But I can't do it.

Researcher: Do you feel at home in this place?

Subject G: No. not much. I want to have all my things around me, I think. This all belongs to Elim. Except for this television and this chair are mine.

She was very proud of the house where she used to live. She did not feel at home in this facility because she did not have her own belongings. She knew that she needed to be in this living condition because of her physical limitation. She seemed to miss being independent. For her, home was the place where she had her own things and she was independent.

Subject D: "No, not exactly because my home has got my dogs. It is nice but it is not home."

Researcher: Do you feel at home here?

Subject D: No, not exactly because my home has got my dogs. It is nice but it is not home. Now, I only got Beau. I got four at home. I raised all of them. I don't think Beau wants to be with them. He is too small. I don't know why he comes to me. But I think he may need company.

Researcher: What do you think you need to have to make this place home?

Subject D: I need my dogs. At home, I can have my own dogs. And I can have anyone here. They were all my friends and I miss them so much.

Home for her was the place where she could live with her dogs and also invite her friends anytime she wanted. She did not feel at home in this facility because she could not have her own dogs and invite her friends often.

Subject E: “No, I don’t feel like home. I have my own couch in a bigger area.”

Researcher: Do you feel like it is home here?

Subject E: No, I don’t feel like it’s home.

Researcher: Could you please describe what home is like for you?

Subject E: I have my own couch in a bigger area. The house that we lived in before I was divorced was hard place. The house was bi-level. But that was hard. You know, getting up and down and stuff. And then, I could not walk at all. It was impossible. And my apartment where I lived, it was nice. We had a big living room and kitchen. And we had a big oak dining room. There was a big couch.

Researcher: Didn’t you bring your couch?

Subject E: No, there is no room for it. And I had a big old cabinet. It was a kind of like the one hanging on the wall there.

Researcher: So, you would like to have your own furniture to make this place feel like home for you.

Subject E: Yes, I think so.

She did not feel like home in this environment because she could not have her furniture in her room. In her room, there were more personal belongings than in other residents’ rooms. However, she still missed the furniture that she used to use in her house. With her physical ability, she could not use her couch to sit on but still wanted to have it around her. If she could see her furniture in a bigger room it would help her feel at home.

Photographs of the favorite places for residents and staff members

In order to understand the influence of The Eden Alternative on the life in this facility, some residents and staff members were asked to take a picture of their favorite place in this facility. Some of the residents, who were not able to take a picture, were helped by a staff member or researcher.

Favorite places of residents and staff members seemed to have different characteristic features. Residents selected one area in their own room, or the places they often used. On the other hand, staff members selected the places that had Eden elements, such as animals, plants, and children. The places staff members selected were not often used by residents. Residents' favorite places were the places where they were emotionally attached. On the other hand, staff members' favorite places were associated with visual attractions.

In order to achieve resident-centered care, staff should understand the residents' daily life and pay attention to the realms where residents stay. Instead of decorating the space residents rarely use, bring Eden Alternative philosophy into residents' spaces, while at the same time keeping the environment attractive and supportive of the staff and visitors as well.

Residents' pictures

Angel next to the bed in her room

The angel was the Christmas present from a middle school student. This angel was handmade by the student as a part of the inter-generation program. Since she liked this angel very much, she decided to keep it all year around.

Comment:

I guess the place around my beautiful thing there. (angel next to her bed) I love my angel.

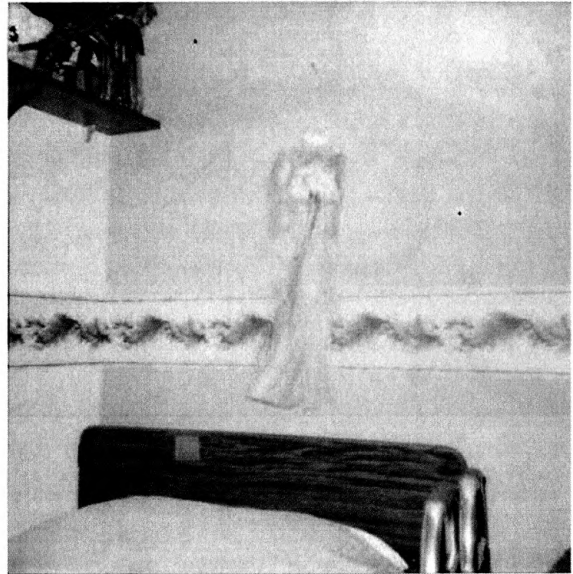


Figure 2.1 Angel next to the bed

Birds in her room

Two birds in the birdcage were her favorite place (thing). She talked to these birds everyday. She said that these birds knew whether she was in her room or not. When she was in her room, the birds talked to her.

Comment:

The place where my birds are my favorite.

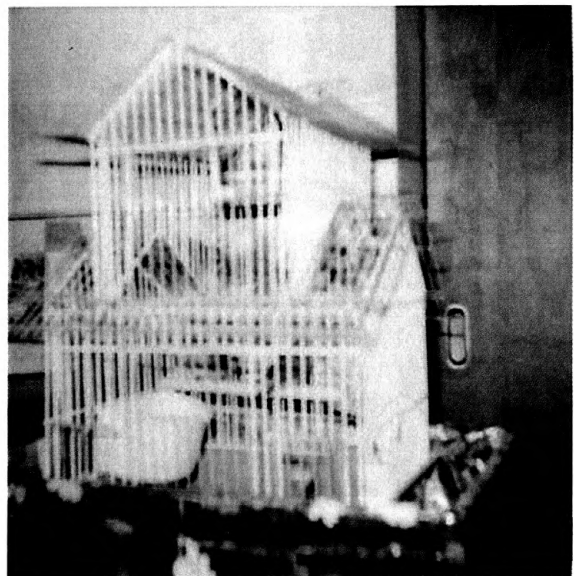


Figure 2.2 Birds in the room

Dog in her room

This dog stayed in her room every day. She had her small bed next to the resident's bed. This resident's favorite activity was to sit and watch the dog.

Comment:

I love watching this little guy. The corner there (the place where the dog always stayed) is my favorite.

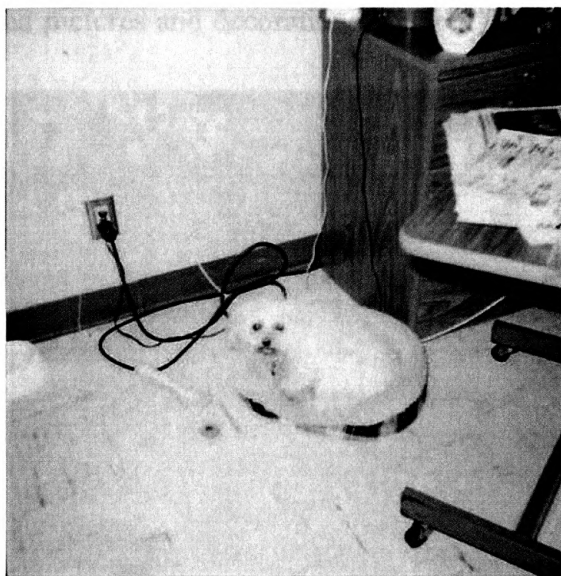


Figure 2.3 Dog in her room

Plants and television in her room

The space that had her plants and television was her favorite place. She said that this was the place that she always looked.

Comment:

I don't really have a favorite place but maybe this corner. This is where I always look at.



Figure 2.4 Plants and Television in her room

Decorations on the wall in her room

One side of the wall in her room that had pictures and decorations was her favorite place. She said that all the memories were with her.

Comment:

I don't really know. But the place where I look most of the time in the mirror is around the television. I can watch TV in my mirror. And I see my Precious Moments too. Maybe my plants in my window. Next to the window, I have got all my stuff on the wall there. My mom made all the wooden things hanging on the wall. And see that the one really tall one the girl one, that I did when my hands were good. That was my favorite pastime. So my mom got it framed for me. And the other stuff is my mom's work.



Figure 2.5 Decorations on the wall

Physical therapy room

Physical therapy room was the first place where she made a friend. She liked the people and place in this room. This place was associated with her good memory.

Comment:

I don't have any favorite place. I can show you some favorite people. It depends on what they are wearing. Maybe the Barn (physical therapy room) would be my favorite.



Figure 2.6 Physical therapy room

Chapel

This resident went to chapel service everyday. She said that she liked the chapel because it was quiet and peaceful.

I think I like the chapel. But it is too far to get to.. I like the big dining room.



Figure 2.7 Chapel

Candy shop

This resident liked the candy shop because she could enjoy seeing people from outside of this facility. Also she could get free ice cream.

Comment:

I think it is the cove. The place has ice cream and also I can see people coming and going. I think that would be my favorite place.

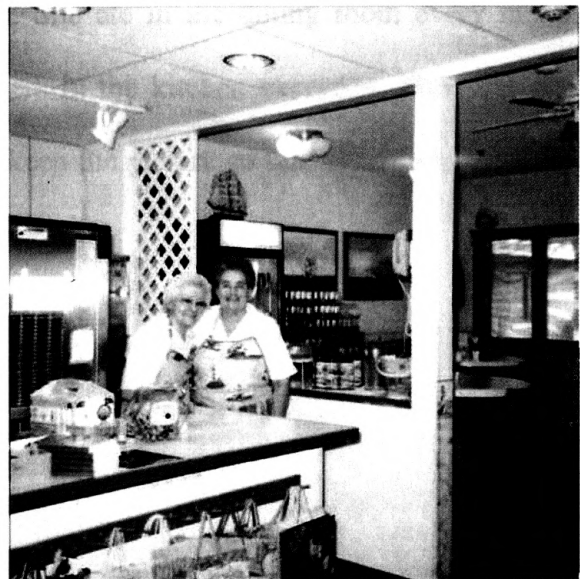


Figure 2.8 Candy Shop

My room

Three residents said that their own rooms were their favorite place in this facility. Since residents would like to keep the photograph, visual images are available. Their favorite place was their own room but each resident had a different reason.

Comments:

I don't know. Maybe my own room. I don't go outside a lot because I have to go out with a wheelchair so I don't go out a lot. I try to get out when it is nice weather out, like this morning.

This room. You need to see the plant that is half geranium and half holly. Those are red and beautiful. I have done that. I don't know how I did it. The one is the Christmas plant. In this chair. I like to sit on this chair and Artist is here. Looking at the Artist from this chair will be my favorite.

My little corner. (In her room)

Dining room

Her favorite place was the dining room. She ate in the dining room every meal. She also helped folding napkins for staff members in the kitchen everyday. This was the place where she spent time often. She wanted to keep the picture so this visual image is not available.

Comment:

My favorite place is where you eat

Staff members' pictures

Aviary in living room

A female certified nurse assistance selected the aviary in the living room. She said that she liked this aviary because residents could sit in front of it and enjoy watching birds' flying.



Figure 2.9 Aviary in Living room

Reception desk

A female nurse selected the reception desk area. In this area, there were a small water fountain, chair, plants and birds. She thought that people, who came into this facility, could feel a warm and homelike feeling.

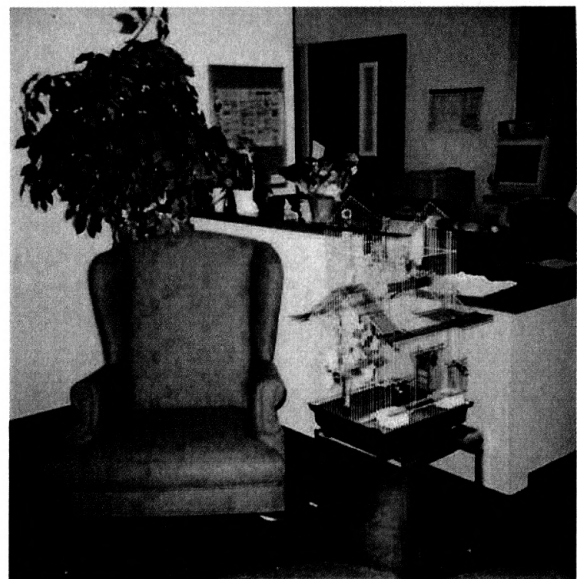


Figure 2.10 Reception desk area

Courtyard

A male manager selected the courtyard. He said that the courtyard in the time, when children came out and played, was his favorite place and favorite time.



Figure 2.11 Courtyard

Sunroom

A female social worker selected the multipurpose room “sunroom”. She thought that this woody space with many plants provide a nice feeling to residents.

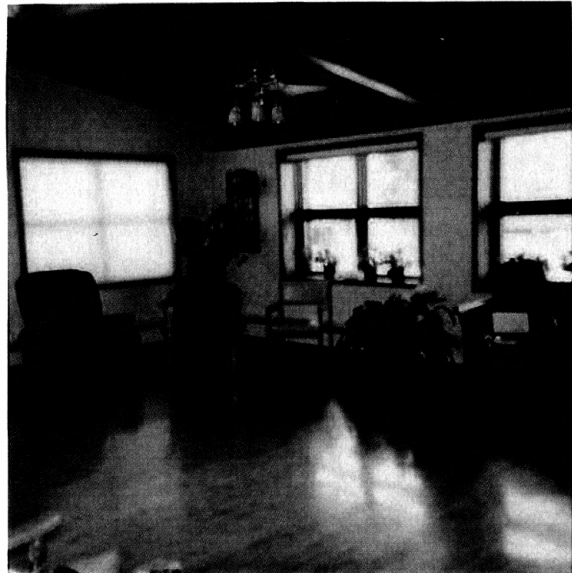


Figure 2.12 Sunroom

Entrance

A female activity staff selected the entrance area. This space had plants, chairs, and home like decoration. When people come into this facility it is the first place they see. She said that this place provided the feeling of home.



Figure 2.13 Entrance

A resident's room

A female social worker selected one resident's room. This room was decorated with many Precious Moments and pictures. She said that this was a favorite place to visit.

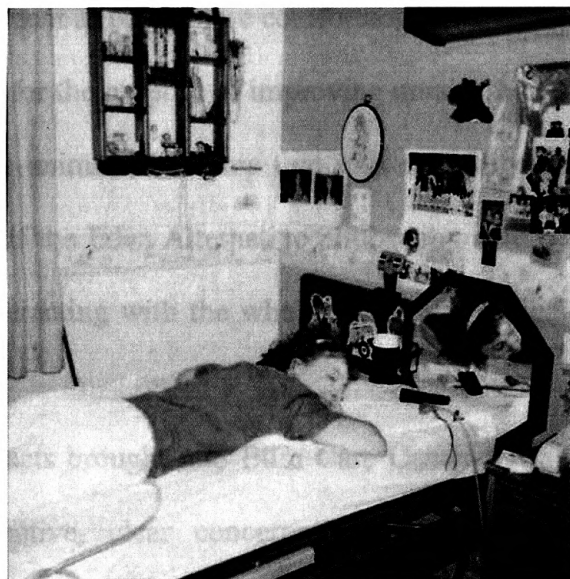


Figure 2.14 A resident's room

CONCLUSION/DISCUSSION

I have learned, through this study, that the philosophy of the Eden Alternative had a positive influence on people's everyday life in the nursing home. The environment with animals, plants, and children created the feeling of "relatedness" (Seales, 1970) with a world outside the world of a nursing home. It also provided companionship for residents' in this facility. The process of "Edenizing" promoted the benefits not only for residents, but also for staff members. The implementation of this philosophy made the facility into a lively environment. Residents seemed to enjoy living with animals, plants, and children in the nursing home environment, but it had little influence on enhancing the sense of "home" to residents. In order to strengthen the feeling of home for residents, promoting personal relationship with living things can be an important issue. By establishing rich everyday routines of having companionship, and with having responsibilities to living things, elders may be able to start feeling in their living environment as being more comfortable.

Although this philosophy was developed for the purpose of improving nursing home residents' quality of life, after the impact of the animals, it seems that it is only regards decorating and plant placement that favors staff. If the Eden Alternative philosophy is to be fully applied, more residents' involvement in interacting with the whole range of elements needs to be pursued.

Although there were many positive impacts brought into Elim Care Center by the philosophy and program of the Eden Alternative, clear concerns about the whole environment were addressed by some residents. The concerns revealed by the interviews with residents identified elements that hopefully can be modified in the future as both the Elim Care Center and the Eden Alternative grow, evolve, and mature.

The influence of the Eden Alternative on the physical setting

The basic structure of Elim Care Center was built thirty years ago when work efficiency and medical treatment were the main concerns in the design philosophy. Therefore, it was not the ideal environment for embracing the philosophy of the Eden Alternative, yet it is a place where potentially a program such as the Eden Alternative that shifts the underlying philosophy of an institution can have a profound impact. Within this existing environment, an Edenizing process was mainly made by staff members. The changes were made for social relationships and for physical settings focused on “genuine care” instead of “treatment.”

The environment was transformed into a “human habitat” with many plants and animals. There was also a childcare center in this building which helped promote an environment similar to the age-diversity of the outside world. Since changes were made by staff members, the new environment was strongly influenced by staff perspective. Consequently, places, staff members used, were decorated more extensively and purposely than those places where residents were the dominant users. Staff members seemed to be interested in “decorating” the places. However, residents were not so interested in “decorated space” outside of their rooms. Since residents’ preferences and physical availabilities were not well understood by staff members, the benefits of the human habitat seem to have little affect on residents’ everyday life. For example, many birdcages and potted plants were placed much higher than residents with wheelchairs could see and touch. Also, the selections of plants were not necessarily reflected in residents’ interests or familiarity. I believe this limited the residents’ interaction with the plants.

Residents appeared to receive benefits from having a child daycare on site. However, the location of the daycare space was not ideal for enhancing spontaneous interactions

between residents and children in everyday life. The location of the child daycare was far from many residents' rooms and zones of activity. Also, the child daycare location had limited visibility from residents' rooms and the living rooms.

The most critical issue to emerge from my own experiences was the size of the building. When I was in a wheelchair, I felt that all the places that I needed to go were very far. The places where daily activities took place were scattered around in the building and I needed to wheel down long corridors to get to anyplace. Eventually, I began to stay more and more in my room because I was tired of wheeling to places. In order to create an environment that enhances residents' interaction with animals, plants, and children, this supportive environment for residents to be active should be extended close to the residents, even into their rooms.

The influence of the Eden Alternative on residents' everyday life

The environment with animals, plants, and children created the feeling of relatedness (Seales, 1970) to the world outside of Elim Center. It also provided companionship for residents' lives in this facility. True, some residents were not fond of animals or children; however, the variety of living things allowed residents to choose and enjoy interacting with at least one of them. The feeling of connectedness brought by companions appeared to reduce the feeling of loneliness in those residents that I interviewed.

Having animals, plants, and children in the nursing home created the opportunities for residents to provide care in the environment where they were expected to receive care. Once residents established personal connections and attachments with living things, they felt responsibility to care for the animals, plants, even the children. It provided the meaning of

life for residents in their everyday lives. Generally, the outside people and staff members tended to associate residents with their physical and mental limitations rather than try to understand what residents could do. However, animals, plants and children were non-judgmental. They expect to be loved by people who love them no matter how old the residents. This relationship seemed to be beneficial for reducing the feeling of helplessness, which residents exhibit in Elim Care Center.

Many residents recognize the repetitive and predictable life cycle in a nursing home. Having living things which constantly change promoted excitement and stimulation for their lives. Excitement and stimulation was beneficial for overcoming the feeling of boredom.

In the following section, residents' experiences with animals, plants, and children were described separately:

Animals

In this facility, animals seemed to bring most benefits to residents compared to other Eden Alternative elements. From the residents' comments in the interviews, the relationship with animals seemed to be the most beneficial for them. Among all the animals in this facility, dogs seemed to establish the most intimate companionship with residents. Dogs liked to visit residents' rooms to ask for treats during the day and also sleep at "selected" residents' rooms. When dogs walked down hallways to visit several residents' rooms, they were petted by residents, staff members, and family members. Some residents looked forward to giving them treats in their rooms. Since many of the residents in the nursing home were physically very frail and mostly stayed at their rooms, dogs were wonderful periodic visitors in their everyday life.

Compared to dogs, cats were not so friendly with people in this facility. They

usually had their favorite spots in their favorite rooms and liked to stay there during the day. Cats seemed to be more active at night and they often stayed at a nurse station at night where the only action in the facility was taking place. Since cats tended to stay at certain residents' rooms, every resident who had a cat in their room had an intimate relationship with them. Cats seem to be very beneficial for the residents who have severe physical limitations and needed to stay in bed all the time. Besides, they were quieter than other animals.

Birds and fishes were mostly introduced in public areas, such as at the entrance, the living rooms, or hallways. The sound of birds' chirping helped create a "lively space" and appeared to be relaxing for many persons. The fish in the fish tanks were soothing for many people. The fish tank installed at the entrance area was especially attractive to children.

Plants

There were two different benefits brought by plants. One was to de-institutionalize the overall appearance of the facility with the use of ornamental plants. The original physical environment of this facility was very hospital-like. As this facility began adopting the Eden Alternative program, many plants were introduced into this facility to make the interior environment look more natural, even beautiful.

The other benefit was to provide the opportunity for residents to enjoy taking care of plants. Residents who kept plants in their rooms were proud of maintaining them well and liked to talk about them. Taking care of plants gave the sense of connectedness with their past and family. They also gain something to look for and talk about in their otherwise predictable everyday lives.

Children

The presence of children brought a feeling of liveliness into the nursing home. I did

not observe many interactive activities between children and residents. However, the noise from the child daycare and their presence in hallways made this place lively. During the day, children often could be seen playing in the center courtyard. Residents whose rooms were facing the courtyard seemed to enjoy watching the children outside.

The residents' concerns to the Eden Alternative

Animals

1. Allergy/hygiene

Residents seemed to have concerns about the hygiene and allergy issues. Some residents enjoyed having dogs visiting their rooms but others were not comfortable with having dogs in their rooms. Some residents commented “animals are nice as long as they stay outside (of the room).” Other residents seemed to like dogs but expressed their beliefs that animals are creatures, like livestock, that are supposed to stay outdoors.

2. Noise

The noise issue of birds and children was mentioned by some residents. For the residents who did not care for birds, their chirping was too noisy sometimes. When one's roommate had birds, the noise issue was very critical.

3. Availability

Some residents did receive benefits from interacting with animals, but the number of animals and the selective behavior of some animals limited the opportunities for every resident, especially newcomers, to establish the close and deep companionship.

Plants

1. Allergy

Some residents mentioned that they might have allergy to plants. Even if they are

not diagnosed as having plants allergies, the presence of plants psychologically made some residents nervous about the threat of allergy.

2. Space issue

There were many plants in public areas, but many residents preferred taking care of their own plants in their own rooms. However, there was often not enough space available for plants in their rooms.

3. Selection of plants

Selection of plants in this facility did not reflect the familiarity or knowledge-base of residents.

Children

1. Noise:

Residents seemed to enjoy interacting with children, but they also mentioned that they did not want to be disturbed by the noise from children. When children became excited, they talk very loud. Since residents prefer having peaceful and quiet time, some residents did not like to deal at all with children's noise.

The influence of the Eden Alternative on feeling of home

The Edenized environment helped residents to adjust themselves into this environment. In this type of living environment, residents' lives are usually strictly scheduled and activities are programmed. They should not live in an environment where almost everything can be predictable everyday. Living with animals, plants, and children allowed residents to enjoy unpredictable situations, a condition that others in the larger community experience everyday. In most nursing homes, bingo is the most popular activity and residents

like to play. I believe the reason why residents like to play bingo would be is that the results are not predictable and may give a feeling of excitement.

Bringing animals, plants, and children normalize residents' lives in the environment where residents are otherwise forced to come and live with many other people who are in the same age-group. As many residents commented, this is not their favorite place, but still they did like this place. Some residents, who commented that they feel "at home" in this environment, seemed to establish good relationship with staff members or animals. A feeling of attachment to something or somebody in the nursing home environment might help them to feel at home. Schwarz reported that "it is impossible to create home for residents, but it is possible to create the environment close to their home." (Schwarz, 1996) By understanding residents' needs and feelings about living in this type of living environment, it is at least possible to create an environment where residents can feel comfortable.

Being able to continue their routine from their past life could help them feel at home over a period of time. Understanding residents' routines from their past experiences could be a very important issue in creating a home-like environment (which is not necessarily a luxury "hotel-like" environment). The environment that contains familiar elements from prior experiences before moving into long-term care facilities can be beneficial for them to feel that the nursing home is homelike. Implementing Eden Alternative appeared to be a good start in providing residents' psychological needs by creating genuine care from the staff members and establishing the true meaning of a homelike environment based upon each resident's own model/memory of "home."

Limitation of the study

Limitation of Sampling

I would like to address the limitations of this research. This case study was conducted in order to explore the experience of residents in an “Edenized” nursing home. With the limitations of time and availability, and at the recommendation of the director of the Eden Alternative, one facility was selected. This meant that there would be no possible comparison study. As it turned out, the facility selected for the fieldwork was in a rural location. Thus, the results here may not reflect the experiences of residents, staff, or families in urban facilities or from facilities with different cultural, ethnic, or racial populations.

In terms of selecting interviewees, only the residents who were cognitively intact were selected for this study. In this nursing home, the majority of residents exhibited some degree of cognitive impairment. Thus, the result of this study may not apply to the residents with cognitive impairments, even in this one social and physical environment.

Limitation of the physical environment

This facility was built thirty years ago when many of the facilities were pursuing a medical model of care. This facility did not have an ideal environment for Eden Alternative. Thus, many of the results from the observations, behavior mappings, and interviews were influenced both by the original and modified physical setting of this facility and by the Eden Alternative program as implemented.

Limitation of methodology

In order to understand the holistic meaning of residents’ experiences in an Edenized

nursing home, a triangulated research method was conducted. Since I was the only person doing the research, data collecting was limited. For example, behavior-mapping data was collected once an hour. I believe a better understanding of residents' behaviors could have been obtained if data were collected more often. A larger sample of interviews would also likely add to my understanding even of this single facility.

Limitation of the interpretation

This facility already had a good reputation for services before they adopted the Eden Alternative. It is difficult to distinguish benefits potentially brought by the Eden Alternative program and philosophy from those provided by the continuing strong services of Elim Care Center.

The researcher is an international student without any health problem and thus quite unlike the typical residents in this nursing home. My observations were influenced by my own culture and physical experience and may be very different from the age-cohort of these residents (like that of my own grandmother), from this staff, and this particular collection of visitors and families.

REFERENCES

- Allen, P. A., Namazi, K. H., Patterson, M. B., Crozier, L. C., & Groth, K. E. (1992). Impact of adult age and Alzheimer's disease on levels of neural noise for letter matching. Journals of Gerontology, 47(5), 344-349.
- Altman, I., & Werner, M.C. (1985). Home environments. New York, NY: Plenum Press.
- Annerstedt L. (1994). An attempt to determine the impact of group living care in comparison to traditional long-term care on demented elderly patients. Aging: Clinical and experimental research, 6, 372-380.
- Atchley, R. C. (1980). The social Forces of Later Life. Belmont, CA: Wadsworth.
- Banks, M. R., & Banks, W. A. (2002). Effects of animal-assisted therapy on loneliness in an elderly population in long-term care facilities. Journals-of-Gerontology:-Series-A:-Biological-Sciences-and-Medical Sciences, 57A, (7), 428-432.
- Baucom, H.A. (1996). Hospitality Design for The Graying Generation. New York, NY: John Wiley & Sons, Inc.
- Baun, M. M., & McCabe, B. W. (2000). The role animals play in enhancing quality of life for the elderly. In Anonymous, San Diego, CA: Academic Press, Inc.
- Bernstein, P. L., Friedmann, E., & Malaspina, A. (2000). Animal-assisted therapy enhances resident social interaction and initiation in long-term care facilities. Anthrozoos, 13 (4), 213-224.
- Calvert, M. M. (1989). Human-Pet Interaction and Loneliness: A Test of Concepts from Roy's Adaptation Model. Nursing Science Quarterly, 194-202.
- Camp, C. J., Cohen, J. M., & Capezuti, E. A. (2002). Mental health services in nursing homes: use of nonpharmacologic interventions among nursing home residents with dementia. Psychiatric Services, 53(11), 1397-1404.
- Cohen. U., & Weisman. G. (1991). Holding on to home: Designing environments for people with dementia. Baltimore, MD: The Johns Hopkins University Press.
- Coleman, M. T., Loney-S., O'Brien, J., Ziegler, C., Pastorino, A. C., & Turner, C. (1995). Influences of physical activity on patterns of sleep behavior of patients with Alzheimer's disease. International Journal of Aging and Human Development, 40(2), 145-153.

Coleman, M. T., Looney, S., O'Brien, J., Ziegler, C., Pastorino, A.C., & Turner, C. (2002). Eden Alternative: findings after 1 year of implementation. Journals of Gerontology, 57A(7), M422-M427

Cooper Marcus, C., & Marni, B. (1999). Healing Gardens: Therapeutic Benefits and Design Recommendations. New York, NY: John Wiley & Sons Inc.

Dempsey, N. P., & Pruchno, R. A. (1993). Family's role in the nursing home: predictors of technical and non-technical assistance. Journal of Gerontological Social Work, 21(1-2), 127-145.

Fick, K. M. (1993). The influence of an Animal on Social Interactions of Nursing Home Residents in a Group Setting. The American Journal of Occupational Therapy, 18, 227-234.

Frank, J. (1999). "I Live Here, But It's Not My Home": Residents Experiences in Assisted Living. In B. Schwarz (Ed.), Aging, Autonomy, and Architecture: Advances in Assisted Living. (pp. 166-184). Baltimore, MD: Johns Hopkins University Press.

Goffman, E. (1961). Asylums: essays on the social situation of mental patients and other inmates. Garden City, N.Y.: Anchor Books.

Graham. D. R. (1978). Prisoners of space? : Exploring the geographical experience of older people. Boulder, CO: Westview Press.

Graham. D. R., & Schoenberg, E.N. (2002). Qualitative gerontology: a contemporary perspective. New York, NY: Springer Publisher Inc.

Griff, M., Lambert, D., Dellmann, J.M., & Fruit, D. (1996). Intergenerational activity analysis with three groups of older adults: frail, community-living, and Alzheimer's. Educational-Gerontology, 22(6), 601-612.

Gubrium, F. J. (1975). Living and dying at Murray Manor. New York, NY: St. Martin's Press.

Gubrium, F. J. (1994). Qualitative methods in aging research. Thousand Oaks, California: Sage Press.

Gubrium, F. J. (1993). Speaking of life : horizons of meaning for nursing home residents. Hawthorne, New York: Aldine de Gruyter Press.

Jessen, J., Cardiello, F., & Baun, M. M. (1996). Avian companionship in alleviation of depression, loneliness, and low morale of older adults in skilled rehabilitation units. Psychological Reports, 78(1), 339-348.

Kaplan, R., & Kaplan, S. (1989). The Experience of Nature: A Psychological Perspective. New York, NY: Cambridge University Press.

Katcher, A. H., & Beck, A. M. (1983). New Perspectives on our Lives with Companion Animals. Philadelphia, PA: University Pennsylvania Press.

Kellert, S., & Wilson, E. O. (1993). The Biophilia Hypothesis. Shearwater, Washington DC: Island Press.

Kuehne, V. I. (1989). "Younger friends/older friends": A study of intergenerational interactions. Journal of Classroom Interaction, 24(1), 12-21.

Leibrock Cynthia. (2000). Design Details for Health: Making the Most of Interior Design's Healing Potential. New York, NY: John Wiley & Sons.

Lewis, A. C. (1996). Green Nature/Human Nature. Chicago, IL: University of Illinois Press.

Lockwood, R. (1983). The influence of animals on social perception. In Anonymous, Philadelphia, PA: University of Pennsylvania Press.

Mansfield, J. C., & Werner, P. (1998). The effects of an enhanced environment on nursing home residents who pace. The Gerontologist, 138(2), 199-208.

Namazi, H. K. (1991). Physical environmental cues to reduce the problems of incontinence in Alzheimer's disease units. American Journal of Alzheimer's Care and Related Disorders and Research, 22-26.

Namazi, H. K., & Haynes, R. S. (1994). Sensory stimuli reminiscence for patients with Alzheimer's disease: relevance and implications. Clinical-Gerontologist, 14(4), 29-46.

Namazi, H. K., & Johnson, D. B. (1992). Pertinent autonomy for residents with dementias: modification of the physical environment to enhance independence. American-Journal-of-Alzheimer's-Care-and-Related-Disorders-and-Research, 7(1), 16-21.

Newman, S. (1993). Observational study of intergenerational activities and behavior change in dementing elders at adult day care centers. International Journal of Aging and Human Development, 36(4), 321-333.

Pastalan, A. L. (1990). Aging in place: the role of housing and social supports. New York, NY: Haworth Press Inc.

Ransom, S. (1998). The Eden Alternative: Creating human habitats in Texas nursing homes. Texas Journal on Aging, 1, 8-13.

Regnier, V. (1995). Assisted living housing for the elderly: design innovations from the United States and Europe. New York, NY: Van Nostrand Reinhold.

Regnier, V. (2002). Design for assisted living : guidelines for housing the physically and mentally frail. : New York, NY: John Wiley & Sons.

Regnier, V., Hamilton, J., & Yatabe, S. (1995). Assisted living for the aged and frail : innovations in design, management, and financing. New York, NY: Columbia University Press.

Robinson, W. J., Thompson, T., Emmons, P., and Graff, M. (1984). Towards an Architectural Definition of Normalization: Design Principles for Housing Severely and Profoundly Retarded Adults. St. Paul, MN: University of Minnesota.

Schwarz, B. (1996). Nursing home design: consequences for employing the medical model. New York, NY: Garland Publisher.

Seamon, D. (1979). A geography of the lifeworld: movement, rest, and encounter. New York, NY: St. Martin's Press.

Searles, F. H. (1960). The Nonhuman Environment: In Normal Development and Schizophrenia. International Universities Press.

Thomas, W. H. (1996). Life worth Living; The Eden Alternative in Action. Acton, MA: VanderWyk & Burnham.

Ulrich, S. R. (1984). View through a window may influence recovery from surgery. Science, 224, 420-421.

Whall A. L., Black, E. M., Groh, J. C., Yankou, D. J., Kupferschmid, B. J., & Foster, N. L. (1997). Effect of natural environments upon agitation and aggression in late stage dementia patients. American Journal of Alzheimer's Disease, 12(5), 216-220.

APPENDIX: A

1. Mission Statement of the Eden Alternative
2. The three steps of “Edenizing” process
3. Ten Principles: The Heart of the Eden Alternative

1. Mission statement of Eden Alternative

The mission of the Eden Alternative is to improve the quality of life for individuals who live in long-term care facilities. The core vision of this organization is to teach the concept that long-term care facilities are not institutions for the frail and elderly but rather habitats for human beings that can be both vibrant and vigorous and be inclusive of Mother Nature (Eden Alternative Homepage, 2002).

The long-range goal of the Eden organization is to build a coalition of successful Eden facilities that will remake the way people think about long-term care. They want to eliminate the loneliness, helplessness, and boredom of institutional care. They believe this will be accomplished by bringing in other living creatures, revitalizing the surrounding environment, and providing daily spontaneity (Thomas, 2002).

2. The three steps of “Edenizing” process

Edenizing process is simple but not short-term project. It takes at least one and half years to two years to transform into Edenized facility.

1. Vision

Creating a Mission & Vision statement takes approximately 1-2 months

2. Education

12-24 months before implementation. Education of staff, residents, families & community is the longest and most important part of the Eden process (culture change). Empowerment is key in the education.

3. Implementation

The implementation takes approximately 4-6 months depending on funding and other individual facility circumstances but implementation is also an ongoing process.

3. Ten Principles / The Heart of the Eden Alternative

Before moving onto implementation process, every facility need to accomplish educating staff members to understand the ten principles, which are the core philosophy of Eden Alternative.

1. The three plagues of loneliness, helplessness, and boredom account for the bulk suffering in a human community.
2. Life in a truly human community revolves around close and continuing contact with children, plants, and animals. These ancient relationships provide young and old alike with a pathway to a life worth living.
3. Loving companionship is the antidote to loneliness. In a human community, we must provide easy access to human and animal companionship.
4. To give care to another makes us stronger. To receive care gracefully is a pleasure and an art. A healthy human community promotes both of these virtues in its daily life, seeking always to balance one with the other.
5. Trust in each other allows us the pleasure of answering the needs of the moment. When we fill our lives with variety and spontaneity, we honor the world and our place in it.

5. Meaning is the food and water that nourishes the human spirit. It strengthens us. The counterfeits of meaning tempt us with hollow promises. In the end, they always leave us empty and alone.
7. Medical treatment should be the servant of genuine human caring, never its master.
8. In a human community, the wisdom of the elders grows in direct proportion to the honor and respect accorded to them.
9. Human growth must never be separated from human life.
10. Wise leadership is the lifeblood of any struggle against the three plagues. For it, there can be no substitute.

APPENDIX B

1-236 from Robinson, W. J., Thompson, T., Emmons, P., and Graff, M. (1984)
Towards an Architectural Definition of Normalization: Design Principles for
Housing Severely and Profoundly Retarded Adults. St. Paul. MN: University of
Minnesota.

237-268 Extensions by Emi Kiyota

NO.	CONTEXT/SITE FEATURE	INSTITUTIONAL	<u>HOMELIKE</u>	Elim
1	Adjacent ten buildings are at least 60 percent residential	No	Yes	No
2	Stores for Shopping area	Out of neighborhood	Within walking distance	3 blocks to the supermarket
3	Public parks or recreation areas are	Out of neighborhood	Within walking distance	Out of neighborhood
4	There are paved pedestrian paths	No	Yes	Yes
5	Lot size of building is	Different from adjacent lots	Like adjacent lots	Larger than adjacent lots
6	Distance of building from street is	Different from neighboring structures	Similar to neighboring structures	Different from neighborhood structure
7	Distance between building and those adjacent is	Different from neighboring structures	Similar to neighboring structures	Different from neighboring structures
8	Front of building approx. same width as nearby building	No	Yes	No
9	Number of stories of building is same as nearby buildings	No	Yes	Yes (One story building)
10	Building depth is same as nearby building	No	Yes	No
11	Building material & color are similar to nearby buildings	No	Yes	No (red brick)
12	Driveway or other access point is similar to nearby structures	No	Yes	No (Drop off drive way)
13	Unlike nearby housing, on the site there is	A parking lot	No parking lot	Large parking lot in front and back.
14	There is a loading dock	Yes	No	No
15	Trash is stored	In a dumpster	In cans near house or garage	In a dumpster

16	If adjacent structures have yard—it has similar provisions for privacy (fence, shrubs, etc.)	No	Yes	No
17	If adjacent structures have yard—the yard of this bldg. Is designed to allow direct access from interior onto a patio, deck, or other place for social gathering	No	Yes	No
18	Yard has	Permanent courts for organized games	No fixed courts for games	No fixed courts for games
19	Yard is	Park-like with paved paths & benches	Small, or large, with small areas for informal activities like cooking eating, gardening	Park-like with paved paths & benches Swing Raised beds for gardening
20	Ratio of building to open yard space is	Different from neighbor structures	Similar to neighboring structures	All the residents' rooms inside of the corridor has view from their window but very limited access from the building to the court yard.
21	Ground area in front of residence is similar in size & shape to nearby buildings	No	Yes	No Large parking space covered by concrete
22	Ground area in back of building is similar in size & shape to adjacent residences	No	Yes	No Large parking area, dumpster, and maintenance building
23	Design of path from street to entry is similar in material, length & configuration to adjacent residential buildings	No	Yes	No Large parking area with drop off drive way
24	Entry path has	No distance between street & entrance, or straight path with no change in level	Change in level between street & entrance, or a change in direction of path from street	Directly lead into the entrance from parking lot

25	Amount of grass and plants in front yard is similar to nearby housing	No	Yes	Yes There are many flowers in parking lot and around entrance
26	Arrangement of trees, shrubs and flower plantings is different from neighboring housing	Yes	No	Yes Because of the large parking space
27	Rear yard has as much grass, shrubs & trees as adjacent residential buildings	No	Yes	No They have many shrubs and trees but grass space is small because of the parking space.
28	Building is	Built as one large mass	Built as several masses or with more than one roof direction	Built as four large masses with square shape
29	Building roof is	Flat	Pitched	Pitched
30	Building façade is	Plain	Broken up with balconies, bay windows, porches, window boxes, etc.	Plain
31	Building material is primarily	Brick, concrete block, concrete, or stone or metal panels	Wood or stucco	Red brick and metal panels
32	Building surfaces are	Smooth and uniform	Varied and have texture	Smooth and uniform
33	Building windows	Are all alike, or have continuous glass walls or strip windows	Have a variety of size and shape	Are all alike
34	Windows are	Metal frame	Wood frame	Metal frame
35	Building entrance has a front entry stair over 5 feet wide	No	Yes	No
36	Building entrance	Has a large (over 30 ft) portico or no portico	Has small portico, front porch, or recessed entry	Large portico
37	There is	More than one door at entry	One door at entry	Two doors
38	Front door is	Sliding, revolving	Hinged	Revolving
39	Front door is made of	Metal or metal & glass	Wood or wood & glass	Metal & glass

40	There is a designated area (recess or stoop) outside the unit entrance	No	Yes	No
41	Unit entry area includes a coat closet or coat hanging area	No	Yes	Yes One coat hanger at the entrance
42	Unit entry area has space for furniture (table or chair) to set mail or possessions on	No	Yes	No
43	Front door (not including storm door)	Opens out	Opens in	Opens out
44	Front door opens with a	Handle, grab bar, push stop. Or automatic door opener	Knob	Push stop
45	Door at building entry is	Open to public	Usually locked & requires someone to ring doorbell before it is opened	Open to public
46	There is	A building directory and or an information or security desk at building entrance	No information or security desk at building entrance	Information desk at the entrance
47	Inside, unit entry area has decorative light fixtures or wall decorations	No	Yes	No decorative light Many wall decorations
48	Inside, unit entry area is specially defined as	An undifferentiated part of the circulation area	A distinct area for receiving or part of the living room	An undifferentiated part of the circulation area
49	There is on the interior	An area especially designed for waiting, such as lobby or enlarged entry vestibule	No area designed especially for waiting such as lobby or enlarged entry vestibule	Enlarged entry vestibule Plants and animals make this area home-like
50	Entry point to individual dwelling unit is capable of being locked	No	Yes	No
51	Mailboxes are provided at outside of building or in entry vestibule area accessible directly to postman	No	Yes	No
52	Social spaces (kitchen, dining & living room, etc.) are	Dispersed	Grouped together	Dispersed

53	There is clear demarcation between social spaces & bedroom & bathroom areas, i.e. separation by level or horizontal distance of at least 8 ft between openings and / or doors	No	Yes	No
54	There is	An administrative office at entry area	No administrative office at entry area	An administrative office at entry area
55	Bedrooms are	Interspersed with public areas and /or are not separated from public areas by level or a distance of more than 8 ft and /or have their interiors visible from a public corridor or public area	Located together in area separated from the entry and public spaces	Interspersed with public areas and /or are not separated from public areas by level or a distance of more than 8 ft and /or have their interiors visible from a public corridor or public area
56	Bathroom interiors are	Visible from public space or corridor between public spaces	Not visible from any area defined as public (entry, living & dining rooms, kitchen, etc.)	Visible from corridor between public spaces
57	Bathrooms	Open directly onto a social space	Open into a circulation space or bedroom	Open directly onto a corridor (public bath) Open directly onto a bedroom (private bath)
58	Building entrance is located near social spaces & away from bedroom & bathroom area	No	Yes	No
59	Living room is	Not next to unit entry	Next to unit entry	Not next to unit entry
60	Living room interior is	Not visible from unit entry	Visible from unit entry	Not visible from unit entry
61	All hall or corridor continuous lengths (including turns & jogs)	Over 18 feet	18 feet or less	Over 18 feet
62	Corridors (linear circulation areas) are	Over 5ft in width & not room like vestibules	5 ft under in width or room-like vestibules	Over 5ft in width & not room like vestibules
63	Floors of horizontal circulation spaces are	Resilient flooring (linoleum, vinyl) concrete or terrazzo	Wood or carpet	Carpet

64	Horizontal circulation spaces are lit at least in part by natural light from windows	No	Yes	No
65	Lighting fixtures in horizontal circulation spaces are	Fluorescent	Incandescent	Fluorescent
66	Halls or corridors have exit signs	Yes	No	Yes
67	In circulation areas there are	Fire extinguishers	No fire extinguishers	Fire extinguishers
68	Lighting fixtures in horizontal circulation spaces are	Purely functional	Decorative (consider shape, material, character of light)	Purely functional
69	In circulation spaces there are	Exit signs	No exit signs	Exit signs
70	Horizontal circulation spaces are	Plain, undecorated	Decorated with furniture, pictures, patterned wall paper or other elements	Decorated with furniture, patterned wall paper, and a lot of plants
71	There is	An elevator	No elevator	No elevator
72	If there is elevator, it is	Not within view from front door and /or more than 15 ft away	Located in direct line of vision of front door, or within 15 ft	No elevator
73	Access between horizontal circulation spaces & stairs is	Through fire door	Open	No stairs
74	Stairs within the residence are	Enclosed	Open	No stairs
75	Stairs are	Located at periphery of residence	Located at center of residence	No stairs
76	Interior stairs of dwelling are made of	Concrete or steel	Wood	No stairs
77	Stairs are surfaced in	Concrete, metal, or terrazzo	Wood or carpet	No stairs
78	Stair rails are	Metal, steel, or aluminum	Wood or wrought iron	No stairs
79	Stair rails are	Plain	Decorative or crafted	No stairs
80	Stairway incorporates a windows	No	Yes	No stairs
81	Stairway lighting fixtures are	Simply functional	Decorative	No stairs
82	Stairway has	No decoration	Decorative things on walls	No stairs
83	In stairway there is	An exit sign	No exit sign	No stairs

84	Access to out of door is	Indirect from social spaces requiring traversing a corridor, level change, or other barrier	Direct from a social space, kitchen, eating area, living room etc.	Indirect from social spaces requiring traversing a corridor
85	A door from kitchen, dining area. Living room, or other group space, opens directly onto backyard, balcony, deck or porch	No	Yes	No
86	Door to outside which is closest to both interior & exterior group areas is	Difficult to open (heavy, or has fast-acting automatic door closer)	Easy to open	Heavy and difficult to open. There is also a gap at the doorway.
87	Outdoor areas are easily visible from interior social area from which there is direct access	No	Yes	No
88	Special rooms are designated for particular activities (crafts, music, games, or TV)	Yes	No	No
89	In addition to kitchen and bathroom, two or more rooms are designed & equipped to specifically accommodate one purpose, with things such as electrical or mechanical games (game room), special plumbing(crafts), special acoustics (music, TV), special size (gym), ect.	Yes	No	Yes
90	There is an administrative office	Yes	No	Yes
91	Two or more rooms are used exclusively by staff	Yes	No	Yes
92	There are more than six residents in dwelling	Yes	No	Yes
93	There are four bedrooms or less in dwelling	No	yes	No

94	All spaces are under 300 square feet in size	No	Yes	No
95	There is more than one space 300 sq in size or larger	Yes	No	Yes
96	Fireplace	No	Yes	No
97	Corridors are enlarged to create lounge areas that have no windows to outside	Yes	No	yes
98	There are designated exit doors with exit signs	Yes	No	Yes
99	Some doors to outside are metal clad	Yes	No	Yes
100	Some interior doors to outside have crash bar, kick plates and/or automatic door closers	Yes	No	Crash bar Kick plates
101	There are at least two and not more than three social areas in addition to the kitchen (e.g. living room, dining room, recreation room)	No	Yes	no
102	Each social area has distinctly different treatment for wall, ceiling & floor	No	Yes	No
103	Each social area has windows to the outside	No	Yes	Yes
104	Each social area has distinctly different light fixtures	No	Yes	No
105	Each social area has distinctly different types of furniture (chairs, tables, etc.)	No	Yes	Yes
106	Living room is	300 sq ft or over	Under 300 sq ft	300 sq ft or over
107	Living room is open to other spaces, but still defined by wall, arches, etc.	No	Yes	No
108	Living room is totally enclosed room accessible by single doors	Yes	No	No

109	Living room floor is	Resilient flooring (vinyl or linoleum) concrete or terrazzo	Wood or carpet	carpet
110	Lighting is predominantly	Fluorescent	Incandescent	Fluorescent
111	Lighting fixtures are predominantly	Overhead	All floor, table and/or wall lamps, with switches on the fixture	Overhead
112	Living room has windows with view to outside	No	Yes	Yes
113	There are sprinklers in living room	Yes	No	Yes
114	Thermostat is accessible to residents for control of heat within dwelling unit	No	Yes	No
115	Windows are operable in living room	No	Yes	No
116	Habitually, living room will seat	More than five people	Five people or less	More than five people
117	There is a sofa, loveseat or couch in living room	No	Yes	Yes
118	There are more than two sofas, loveseats, or couches in living room	Yes	No	Yes
119	Seating is	Placed against walls	Places variously within the room	Placed against walls
120	Living room seating is covered with vinyl	Yes	No	No
121	Living room seating are	All one color	A variety of colors and patterns	A variety of colors and patterns
122	Living room chairs are	All one style	In varying styles	In varying styles
123	Windows in living room have	No covering or metal shades	Fabric curtains or shades	The combination of fabric curtains and shades
124	Operable window coverings allow for control of privacy and light	No	Yes	Yes But it is rare for residents to change
125	Coffee table or other low surface is in front of couch in living room	No	Yes	No
126	Shelves for storing things are in living room	No	Yes	Yes

127	Walls of living room are	Undecorated, or decorated only with one type of object	Decorated with variety of things: posters, painting	Decorated with hangings and plants
128	Every wall segment over 4 ft long has decoration on it or furniture (table, shelf) against it	No	Yes	Yes
129	There is	A functional wall clock	No clock or a decorative clock	A functional wall clock
130	Eating area (dining room or kitchen) has more than one table	Yes	No	Yes
131	Eating area has table that seats no more than eight people	No	Yes	No
132	Eating area is	Over 150 sq ft	15 sq ft or less	Over 150 sq ft
133	Eating area has table that seats no more than eight people	No	Yes	No
134	Window in eating area is operable	No	Yes	No
135	Operable window coverings allow for control of privacy & light in eating area	No	Yes	No
136	Eating area is lit with incandescent lighting	No	Yes	No
137	Lighting fixtures or fixture in eating area are decorative	No	Yes	No
138	Eating area has decorative elements (pictures, plants, curtains, etc.)	No	Yes	Yes
139	Kitchen counters are	Stainless steel	Wood, plastic laminate or ceramic tile	Stainless steel
140	Only one stove in kitchen is standard residential size	No	Yes	No
141	Only one sink or double sink is standard residential size	No	Yes	No

142	There is	More than one refrigerator or commercial-size refrigerator or walk in cooler	One standard size refrigerator	one refrigerator or commercial-size refrigerator or walk in cooler
143	Kitchen is ventilated by	Large commercial ventilation system	Window, small fan, or residential size hood or fan	Large commercial ventilation system
144	Kitchen is lit by	Fluorescent lighting only	Some combination of incandescent, fluorescent, and natural light from windows	Fluorescent lighting only
145	Kitchen includes space for table for eating and other activities, or opens into nearby eating area or dining room	No	Yes	No
146	There is a telephone in kitchen	No	Yes	No
147	There is a window to see out of doors	No	Yes	Yes
148	Window in kitchen is operable	No	Yes	No
149	Kitchen size is	Over 150 sq ft if not eating area, over 200 sq ft if there is an eating area	150 sq ft or under if no eating area, or 200 sq ft or under if there is an eating area	over 200 sq
150	Food is served in	Cafeteria line	Kitchen or dining room	Kitchen
151	Kitchen has	Pass through used exclusively for serving or cleanup	No pass through or pass through used both for serving and cleanup	No pass through or pass through used both for serving and cleanup
152	No dishwasher, or only standard residential-size dishwasher in kitchen	No	Yes	No
153	There are janitor's closets	Yes	No	Yes
154	Cleaning equipment is accessible to residents	No	Yes	No
155	Kitchen cupboards have locks	Yes	No	No
156	Linen cupboards have locks	Yes	No	No

157	Living room storage areas have locks	Yes	No	No
158	Clothing storage areas have locks	Yes	No	Yes
159	Laundry service is provided	Yes	No	Yes
160	Laundry facilities are located in	Specially designed area containing only laundry and/or ironing equip.	Area used for several purposes (kitchen, bathroom, or basement general purpose are) or laundry is done in a laundromat by residents	Specially designed area containing only laundry and/or ironing equip.
161	Laundry area is located in accessible location, within 12 ft of primary stairs or kitchen or within general bedroom area	No	Yes	No
162	Laundry facilities have more than one washer and/or dryer	Yes	No	Yes
163	Laundry area has	Painted concrete floors	Floors which are carpeted, wood or tiled, or if concrete, have area rug	Painted concrete floors
164	Laundry area is	Plain	Painted, wallpapered, or has decorations or curtains	Plain
165	Laundry area is lit with	Fluorescent lighting only	Incandescent and/or natural lighting	Fluorescent lighting only
166	There is	More than one person per bedroom	One person per bedroom	More than one person per bedroom
167	If bedrooms are shared	More than two people share some bedrooms	No more than two people per bedroom	No more than two people per bedroom
168	Bedroom size is	Over 17 sq ft	Under 170 sq ft	Under 170 sq ft
169	Bedrooms are, in general. (room proportions length, width)	Rectangular (1.3: 1.0 or greater) with short side the window wall	Square (less than 1.3:1.0) or if rectangular, have windows in long side	Rectangular (1.3: 1.0 or greater) with short side the window wall
170	Windows are	Over 4 ft wide	4 ft wide or less	Over 4 ft wide
171	Bedroom windows are operable	No	Yes	No
172	Windows are	Fixed, awning	Double-hung, casement, or sliding	Fixed, awning

173	Ceiling in bedroom	Has track for privacy curtain	Has no track	Has track for privacy curtain
174	There is a built-in closet for each bedroom occupant	No	Yes	Yes
175	Closet has	Less than 3 ft of hanging rod per person	3 ft or more hanging rod per person	3 ft or more hanging rod per person
176	Bedrooms have	Built-in clothing storage unit	No built-in clothing storage unit	Built-in clothing storage unit
177	General light is provided by	Fluorescent light on wall or ceiling	Incandescent light fixture on wall by door or in center of ceiling	Fluorescent light on wall or ceiling
178	Task lighting is provided by	No fixture, fixed lamp, or lamp switched elsewhere than on fixture	Movable lams with switch on fixture	No fixture, fixed lamp, or lamp switched elsewhere than on fixture
179	Task lighting is	Fluorescent	Incandescent	Fluorescent
180	Task lighting is controlled	At the door	At a lamp	At a lamp
181	Ceilings are	Suspended tile	Plaster, gypsum board, plaster board	Plaster board
182	Floor material is	Resilient flooring, terrazzo, ceramic tile. Concrete	Wood or carpet	Tiles
183	There are area rugs	No	Yes	No
184	Bedroom door has	Automatic door closer	No automatic door closer	No automatic door closer
185	Bedroom door has	Handles	Knobs	handles
186	Bedroom has	Smoke detector or sprinkler	No smoke detector or sprinkler	Smoke detector or sprinkler
187	Each bedroom has windows located in different place	No	Yes	No
188	Each bedroom has different styles and kinds of furniture	No	Yes	No
189	Each bedroom has different color wall, curtains and/or carpet	No	Yes	No
190	Each bedroom has different styles and kinds of furniture	No	Yes	No
191	Bedroom windows have	No window covering, or plastic, vinyl or metal shades or blinds	Fabric curtain or shade	Fabric curtain

192	Operable window coverings allow for control of privacy & light in bedroom	No	Yes	Partially
193	There is a free-standing dresser or chest of drawers for each person	No	Yes	There is a drawer for each person
194	There is a bookshelf in the room	No	Yes	No
195	One desk, table, or other work surface is provided in the room for each person	No	Yes	No
196	Decorations are on the wall (pictures, photos, posters)	No	Yes	Yes
197	There is one upright chair for each person	No	Yes	Residents can bring their own chair if they want
198	There is an easy chair or other upholstered chair	No	Yes	Residents can bring their own chair if they want
199	There is a mixture of styles and types of furniture in each bedroom	No	Yes	No
200	Beds have	Metal headboard	Wood headboard or no headboard	Metal headboard
201	Bed height is	Over 2 ft	2 ft or under	Over 2 ft
202	Upright chair is	Metal	Wood or molded plastic	N/A
203	Comfortable chair is covered with	Vinyl	Woven fabric	Woven fabric
204	There is a wardrobe	Yes	No	No
205	Bedrooms have	Metal wardrobe	No wardrobe, or wooden wardrobe	No wardrobe
206	Bedside table is	Fixed or has casters	Free-standing with no casters	N/A
207	There is a mirror over each dresser	No	Yes	No
208	There is	No clock or a fixed wall clock	Small alarm clock sitting on horizontal surface	Small alarm clock sitting on horizontal surface
209	Bathrooms are within 10 ft of each bedroom door	No	Yes	Yes

210	Trip between any bedroom & its associated bathroom	Requires passing rooms such as living room, den, kitchen, office, etc.	Does not require passing any room other than bedrooms or other private spaces	Does not require passing any room other than bedrooms or other private spaces
211	Bedroom has a medicine cabinet or shelf	No	Yes	No
212	Linen closet is in bathroom or within 4 ft of door	No	Yes	No
213	Bathrooms are shared by no more than four people	No	Yes	No
214	Bathroom has	Two or more sinks	One sink	One sink
215	Bathrooms are 70 sq ft or under in size	No	Yes	No
216	Bathroom has	Stand-up shower	Tub or tub and shower	Tub and shower
217	Bathroom has	Gang shower or more than one bathing fixture	Single tub or shower	Gang shower or more than one bathing fixture
218	Bathroom has	More than one toilet	One toilet	One toilet
219	There are toilet stalls	Yes	No	Yes
220	There are shower or tub stalls	Yes	No	Yes
221	Distance between any of the fixtures, toilet, tub/shower, and sink is	Over 6 ft	No more than 6ft	No more than 6 ft
222	Bathrooms segregated by sex	Yes	No	No
223	Wall materials are	Ceramic tile up to 3 ft	Plaster or wallpaper except around tub/shower	Ceramic tile up to 3 ft
224	Floor has	Bare tile	Carpet or area rug	Bare tile
225	There is a floor drain	Yes	No	Yes
226	Bathroom has	One or more urinals	No urinals	No urinals
227	Bathroom has sanitary napkin disposal units	Yes	No	Yes
228	Toilet seats are	u-shaped	Round	u-shaped
229	Paper towel dispensers are in bathroom	Yes	No	Yes
230	Wastebaskets are	Large, over 2 ft tall	Small, under 2 ft tall	Small
231	Wastebaskets are made of	Metal	Wood, vinyl, plastic, straw, cardboard	Metal

232	Decorative elements are on the walls (pictures, plants, wallpapers, etc.)	No	Yes	Yes
233	Curtains, shower curtains, and / or towels are colorful	No	Yes	White and green
234	Bathroom has window	No	Yes	No
235	Bathroom window operable	No	Yes	No
236	Curtains, shades, or other devices in bathroom window to allow for control of privacy	No	Yes	Yes
Entrance				
237	Decoration between two entrance doors	No	Pictures, and plants	Framed photograph of residents, plants, and chairs
238	Reception desk	Large Reception desk	No reception desk	Reception desk with low horizontal counter that has birds and many plants on the top.
239	Entrance area		Table, couch	Plants, birds, dogs, fish tank and wood benches
240	Waiting room	Chairs along to the wall	Couch and table	Couch, table, and decorative lamp (incandescent light)
241	Candy shop			Small gift shop for residents and coffee shop for not only for residents but also staff members and visitors.
Activity room				
242	Entrance door to activity room	Heavy, metal	Wood door	Heavy metal sliding door
243	Furniture	Metal or vinyl covered chair Large table	Comfortable couch, table	Metal chairs and large metal table

244	Access to outside	No access to outside	Easy access to outside	There is an access to courtyard but the door was too heavy for residents. There also are gaps at the door that makes it impossible for wheelchair residents to go over.
245	Visual access	Limited	Nice view to outside	There are windows but screens are always closed.
246	The wall decoration	Few decorations Schedule board for staff members	Decorations of hand made crafts	Mainly for staff's convenience. Activity schedules.
247	The storage are is for	Only staff	Mainly for residents	Only staff
248	Activities are	Programmed and scheduled monthly	Not programmed Spontaneously happen	The activities in activity room were all programmed and scheduled
Hallway				
249	Hallway wall	No decoration	Pictures	Framed pictures and plants. The plants next to the residents' doors are taken care by residents
250	The length of hallway	Long	Short	Long
251	The shape of hallway	Straight line and 90 degree turns	Organically curbed	Straight line and 90 degree turns
252	Things on the hallway	Medicart, lifts, and cleaning carts		Medicart, lifts, and cleaning carts
253	The residents in the hallway	<ul style="list-style-type: none"> - Sit and look at people passing by - Walk around without any purpose 	Activities happening Having conversation	<p>Some are sitting and just looking at people passing by them.</p> <p>Some people are walking with dogs</p> <p>Activities with animals</p>
254	The sound in the hallway	Quiet or machinery	People's voice or the noise from daily activities	There were noise from machinery, such as vacuum. The noise from child day care

255	The hallway has	Bulletin board at the height of the walkers' eye level	No bulletin board or hand made bulletin board	Bulletin board that was made by staff members at the height of the walkers' eye level
256	The color of wall	White or light blue	Soft pastel color	Soft pink and soft blue
Kitchen				
257	The material of table and chair	Plastic or metal	Wood	Combination of plastic and metal
258	The table has table cloth	No	Yes	No
259	The lighting is	Fluorescent	Incandescent	Fluorescent
260	Silverware is wrapped by	Fabric	Fabric	Paper
261	The materials of plates	Not decorative Plastic plates	Ceramic Decorative design	White and pink plastic plates
262	The material of glass	Plastic	Glass	Plain plastic
263	There are flowers on the table	No	Yes	No
264	Spice bottles are made of	Plain plastic	Decorative glass, or ceramic	White plastic
265	Coffee is served from	Thermo pot	Coffee pot	Thermo pot
266	The servers dress	Nurse uniform	Regular cloth with apron	Nurse uniform
267	The smell of the dinning room has	Mixed food smell or chemical	Bread	Mixed food smell
268	The menus of the meal	One menu	Choose from various menus	There are two different menus

APPENDIX C

A example of Behavior mapping

4 pm

blue : resident
 green : family member
 orange : staff member
 animal

