A CASE STUDY OF PHYSICAL ENVIRONMENT AND FACILITY MANAGEMENT IN A LONG-TERM CARE FACILITY

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B. Arts, Fort Hays State University, Hays, KS, December 1973

A THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF ARCHITECTURE

Department of Architecture
College of Architecture and Design

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1994

Approved by:

Major Professor

ABSTRACT

With the increasing older population and the expectation that an increasing number of these people will at some time reside in a long-term care facility (Urban Land Institute, 1983), there is a need to describe and evaluate the strengths and weaknesses of the physical environment and facility management in such settings. Because of the expansion in the older population, long-term care facilities are evolving in the development of resources that provide housing, nursing, and other care services for older persons. The growth in long-term care facilities warrants continued research involving the environment of such settings. In 1988, 72% of the 50 largest retirement housing operators reported that they had increased their total facilities, total units, or both during the year (Contemporary Long Term Care, 1990). The responsiveness of the environments for their residents, as well as for the staff, is of increasing importance. Because residents of long-term care facilities are no longer able to live completely independently, they depend on the help of staff members for many of life's daily functions. Assisting with dressing, toileting, bathing, and social activities are only a few tasks that staff frequently provide for residents. The humane and efficient provision of such services are the concern of residents and their families, as well as owners and administrators of such settings.

While research has addressed the resident needs and functional abilities in such settings, the concerns for staff and their ability to perform effectively have received less attention. In depth inquiry and observation is warranted to describe the physical environment and facility management of long-term care facilities, as well as any

relationship they may have regarding support for the staff in its caregiving role. The setting for the research was a long-term care facility located in Manhattan, Kansas. The objectives of the research were: (1) to develop a case study of this long-term care facility by observing and describing its physical environment; (2) to describe the management of the facility; and (3) to explore relationships of the physical environment and facility management. Outcomes regarding the relationship of design and management were documented, as well as any benefits with which these outcomes might be associated. The study offered additional knowledge to owners and administrators regarding how well their facility functioned, which, in turn, should help them to better understand their facility, the needs of management and staff, as well as help identify shared goals. These findings also could help formulate the design and development of future facilities, as well as help owners and administrators achieve more effective management.

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CHAPTER I

INTRODUCTION

One of our society's most pressing needs is responsive housing environments for a maturing population. With the increasing older population and the expectation that an increasing number of these people will at some time reside in a long-term care facility (Urban Land Institute, 1983), there is a need to describe and evaluate the strengths and weaknesses of the physical environment and facility management in such settings. Because of the expansion in the older population, by the year 2030 we can expect at least every fifth American to be elderly (over age 75), and one in four elders to spend at least some time in a nursing home (Siegel & Taeuber, 1986). Despite the increasing emphasis on home and community-based care, long-term care facilities will continue to have an impact on a substantial proportion of older people and their families. Concern over the qualities of management and design of the long-term care facility, as well as the cost effectiveness of such facilities, will continue.

Because long-term care facilities are evolving in the ways in which they provide housing, nursing, and other care services for older persons, continued research involving the environment of such settings is needed. In 1988, 72% of the 50 largest retirement housing operators reported that they had increased their total facilities, total units, or both during the year (Contemporary Long Term Care, 1990). The responsiveness of the environments for their residents, as well as for the staff, is of

great importance. Because residents of long-term care facilities are no longer able to live completely independently, they depend on the help of staff members for many of life's daily functions. Assisting with eating and nutritional needs, dressing, toileting, bathing, and/or social activities are only a few tasks that staff can provide for residents. The humane and efficient provision of such services are the concern of residents and their families, as well as owners and administrators of such settings.

The primary objective of this research study was to develop a descriptive knowledge of the physical environment and facility management decisions, through the case study of a single long-term care facility. Information on the consequences regarding possible relationships between the design and management, as they relate to management and staff behaviors, should help to identify issues regarding the physical and social environment of this facility and describe how well the design and management work together to optimize benefits, such as staff function and costs, to the organization. Owners, administration, and staff of long-term care facilities, who are informed about the organizational concerns of both the design and management of their facility, may realize organizational effectiveness or "the maximization of return to the organization by all means" (Katz & Kahn, 1978). Such a case study of the facility's strengths and weaknesses can aid in the design and development of new facilities, improve existing facilities, and suggest questions and issues for further research.

The Role of the Physical Environment in Long-term Care

The study of the reciprocal relationships between people and their total environments over the past several decades demonstrate that the architectural

environment is more than a background variable; it may exert a significant influence on behavior (Cohen & Day, 1993). Variables in a person's total environmental domain influence each other and jointly shape an individual's experience and outcomes for a setting (Moos & Lemke, 1984).

The role the architectural environment plays in long-term care facilities traditionally focuses on relationships between architecture and residents of the facility, with limited discussion about the relationship of architecture and staff working within the facility (Cohen & Weisman, 1991; Cohen & Day, 1993; Moos & Lemke, 1984). Because more than half of the residents admitted to long-term care facilities suffer from various forms of dementia, there is increasing research regarding design intervention for persons affected with a dementing illness.

As cited by Matthew and Sloan (1991):

> The 1985 National Nursing Home Survey (Hing, 1987) reported that 63% of all residents were disoriented or memory impaired to such a degree that performances of the basic activities of daily living and mobility were impaired. Other studies suggest that the percentage may be even higher (Sloan & Pickard, 1985; Kay & Bergmann, 1980; Peppard, 1985).

The recent works of Moos and Lemke (1984), Cohen and Weisman (1991) and Cohen and Day (1993) have considered in depth the role of the architectural, social, and organizational environments in various types of long-term care facilities. Their studies view environments as complex systems not limited to the physical attributes but also encompassing organizational policy and the behavior and attitudes of others using the setting. For example, an environment is considered therapeutic when the setting is not institutional in appearance but homelike and provides ties to what the residents

remember as healthy and familiar. Such residential qualities might include the use of carpeting, wall covering, residential furniture, and the absence of nurses stations and intercoms. The use of homelike qualities may help in the resident's transition to a new setting by contributing a sense of comfort for residents and family members (Cohen & Weisman, 1991).

Residents living in long-term care facilities typically include a sizeable number of memory impaired persons. Consequently, management and staff working in such settings are being challenged daily with numerous issues. For example, persons suffering from cognitive impairments have difficulty processing sensory stimulation. Loud noise, glare, and obstacles along a pathway, may cause frustration in a resident. Environments need to support the social, organizational, and physical concerns of both residents and staff. Environments that enhance the well being of its residents and facilitate ease in caring for them, are likely to lessen staff stress (Matthew & Sloan, 1991).

Supportive physical environments play an important part in the improvement in resident care outcomes, increased staff efficiency, and reduction in costs. For example, surroundings can encourage independence among residents, affect their moods, reduce anxiety, and stimulate cognitive skills. Thus, design features may make the staff's care-giving easier and, in turn, increase performance and morale. Physical designs that also support staff in delivering care (i.e., design features that minimize steps) may attract and retain staff, therefore ensuring cost containment by limiting continual recruitment

and training of new employees. Residents also benefit from the stability of staff by the consistent and familiar care that may be provided.

The Role of Facility Management in Long-term Care

Facility management is a relatively new concept that refers to the management of occupied buildings and their associated building systems, equipment, and furniture to enable and to enhance the organization's ability to meet its business or programmatic objectives (Becker, 1990). Thus, facility management encompasses physical as well as management criteria of a facility.

As a way of meeting new challenges brought about by consumer awareness, advanced technology, at-home care, and the need for increased productivity, many facilities during the 1980s acknowledged the need to upgrade the physical environment and organizational management of new and existing structures. Since long-term care facilities not only provide services for the elderly, but employ and manage personnel, operate and maintain a physical structure and strive for cost effectiveness, they can benefit from facility management. Thus, thoughtful master planning of both the physical environment and management of facilities became a major criteria for such organizations. In addition, society's expectations of high quality and efficient cost outcomes challenge the operation of long-term care facilities and emphasize the need for better management.

A successful interrelationship between design features, management, and social climate of long-term care facilities, assists in promoting appearance, productivity, and efficiency within the facility (Saunders, 1991) and may facilitate quality care and cost

containments. Minimizing staff turnover is one outcome that may be associated with a successful interrelation of design, management, and social climate. Long-term care facilities that strive for a blend of design, management, and social climate also may experience enhanced staff productivity and efficiency. As cited in Brennan and Moos (1990):

> Staff turnover is a serious problem in long-term care facilities. It may increase nursing staff's workloads and thereby lower their performance and morale. It also is expensive, necessitating continual recruitment, hiring, and training of new employees. For residents, staff turnover may reduce the quality of care (Kasteler, et al., 1979).

Physical features can support staff by providing a more pleasant and functional work environment. For example, as cited in Brennan and Moos (1990), the study by Knapp and Harris (1981) of staff vacancies and turnover in a British long-term care facility, found more nursing staff vacancies in facilities when fewer physical amenities were present. In addition, the social and organizational climate of a health care setting impacts the job performance and morale of employees (Moos & Scaver, 1987, as cited in Brennan & Moos, 1990) and may affect staff turnover in long-term care facilities. For example, staff who work in facilities that allow their input on management decisions may experience higher job satisfaction (Waxman, Carver & Berkenstock, 1984; Mullins, Carnot, Busciglio & Weiner, 1988).

Consistent with this previous research, Brennan and Moos (1990) found that facilities which provide appropriate physical design features, such as handrails in the halls and appropriately furnished lounges, may facilitate the staff's work and reduce turnover. The study also suggested it may be helpful to alter the social and

management practices. For example, facilities that attempt to reduce conflict and encourage mutual helping among staff and residents may experience improved staff performance, morale and retention. These studies suggest that there is a relationship between facilities with supportive physical environments and effective facility management. Possible outcomes of these relationships may include improved job function by management and staff, and thus, enhanced quality of care, as well as cost containments in the facility.

As cited in Cohen and Weisman (1991):

> The data presently available suggest that these environmental features may also have a positive effect on residents' behavior in the form of increased or improved function and concern and, as a consequence, may facilitate their care and encourage family visits (Ohta and Ohta, 1988; Lawton, Fulcomer and Kleban, 1984). Research in office environments (Brill et al., 1984) indicates that workers are more productive or better satisfied with their employment after changes in their interior environment. While no equally detailed parallel health care studies exist, these findings suggest that the high turnover rate endemic among staff in long-term care settings may be ameliorated by improving the environmental qualities of these settings.

Objectives of the Study

The problem of providing a supportive living environment for aging residents who require varied nursing care and a supportive working environment for management and staff is a major challenge facing long-term care facilities. While research has addressed the residents' needs and functional abilities in long-term care facilities, the concerns for staff and their ability to perform effectively have received less attention. In depth inquiry and observation is warranted to describe the physical environment and

facility management of such settings, as well as any relationships they may have regarding support for the staff in its caregiving role.

Past studies imply that positive consequences of facility management are dependent in part on the physical environment of the organization (Brennan & Moos, 1990). Previous research on health care environments has focused on the individual and not on the organization as a whole. However, it is the integration of facility planning and management processes and physical design that produces successful facilities (Becker, 1990; Sundstrom, 1986). Thus, successful integration of architecture and management and may lead to the following rationale:

(1) Elements of the physical environment and management will affect staff attitudes and perceptions.

(2) Staff attitudes and perceptions directly affect caregiving.

(3) Greater job satisfaction enhances performance.

(4) Increased performance affects operational costs.

Physical environments that are supportive can influence the behavior of management and staff and may result in positive outcomes. When individual preferences and needs of management and staff are congruent with the actual physical environment, effective facility management may be achieved.

Physical (architectural) environment, as used in the study, refers to the buildings and the interiors of the long-term care facility chosen for the research. This definition includes the appearance and layout of buildings, the arrangement of rooms, furnishings, and equipment, as well as ambient conditions including lighting, sound, temperature,

air, and color (Sundstrom, 1986). The study describes individual ambient factors of the environment (lighting, sound, etc.) as well as the physical environment as a whole, and investigated its relationship to facility management. The description of the building layout, furniture, equipment, and ambient factors and the observation of management and staff in the environment helped assess the function of the work environment. How well the physical environment features perform the functions for which they were intended, as well as adaptions management and staff may have made in the environment to facilitate better function, were documented.

Facility management of the long-term care facility selected for the study was explored by identifying the administrative and organizational policy of the long-term care facility and examining the policy's effect on the management and staff. These policies were then assessed in terms of how well they satisfied the shared goals of the administrator and staff. In a long-term care facility, staff and administrators may perceive organizational goals and policies differently. Identifying differences in perceptions of the organization's policy among staff members helps managers and staff work together efficiently. For example, direct care personnel, administrative staff, housekeepers, and maintenance workers may have entirely different ideas of the goals and objectives of their organizations. Low levels of understanding between administrators and subordinates might well lead to low levels of job satisfaction and productivity, as well as high levels of employee turnover (Clare, Carter, & Sanford, 1989). When management and staff experience shared goals and perceive their

objectives in a like manner, this interaction can substantially contribute to successful facility management of a long-term care facility (Clare, Carter, & Sanford, 1989).

A case study documenting the physical environment and facility management and potential relationships may inform owners and administrators of the long-term care facility how well their facility functions for management and staff, suggest modifications, and provide a basis for a comparative study of other facilities within their organization. Feedback from the administrator and staff about the physical design and management decisions, will enable these users to collaborate and synergize their efforts. Findings of the study should identify concerns of the long-term care facility and may provide a basis for future study. This study addresses the following key questions:

(1) What physical features and management decisions are characteristic of the long-term care facility?

(2) How does the physical environment appear to affect the management process of the facility (i.e., what are the apparent impacts of the facility design on management)?

(3) How do the physical environment and management practices of this facility compare with national norms?

(4) What are the perceptions of the management and staff regarding the design and management of the facility?

(5) Are preferences and needs regarding the design and management perceived to be the same for the administrators and staff?

(6) How do the preferences and needs of the staff compare to the actual characteristics of the facility?

CHAPTER II

METHODOLOGY

This chapter describes the setting selected for the study as well as the sample of respondents and the procedures and measurements that were used to collect and evaluate information necessary to meet the objectives of the study.

Setting

A for-profit long-term care facility was chosen for the case study because of the likelihood that such an organization would emphasize facility management. The facility's strong reputation with the community, and the owner and administrator's willingness to allow the facility to be used for research also were factors in the selection. The long-term care facility selected is a four-year-old organization and is one of seven facilities owned by a health care service company. It offers multiple levels of care for its residents. Skilled nursing care, adult day care, and assisted-living are provided to accommodate residents with varied needs within the same environment. As residents' needs change, within-building moves ease the stress sometimes associated with relocation.

The single, free standing facility was completed in 1989, exclusively for skilled nursing and day care services. See Figure 1 for the front elevation. Soon after completion, owners and administrators projected the need for an assisted-living

Figure 1. Exterior view of long-term care facility.

complex, and in 1992 this addition was completed. The long-term care facility is located at the northwest corner of Manhattan, Kansas. The site is a sparsely developed area, where some new construction is occurring, and it is surrounded on three sides by open fields. The setting is tranquil and offers almost no visual interaction or link to the city itself. A single route of entry to the facility further isolates the setting and gives a rural quality. The landscaping is impeccably manicured and accents the structure itself. A conscious effort was made to reflect a residential atmosphere in the facade of the building by selecting materials, such as a mixture of wood and brick, and features such as bay windows and deep overhangs, that promote association with a home-like environment.

The facility has a maximum capacity of 125 residents, with a total square footage of approximately 50,000. Its occupancy currently is 108 residents (86%) of which 23 residents (22%) reside in assisted-living and 85 residents (78%) reside in skilled nursing. Staff is comprised of 70 full and 20 part-time members. Supervisory staff include an executive director (administrator), executive assistant, an assisted-living supervisor and social worker, as well as directors of nursing, housekeeping, maintenance, dietary, activities, therapy, and medical records personnel.

Observation of Physical Environment and Management

Data relating to the physical environment and the management resources of the long-term care facility were obtained through the use of multiple measures. The first method employed was systematic exploratory observation of the facility. In order to identify potential issues involving the environment and management of the facility,

observations of the overall physical environment and its use were documented by notes, photographs, and annotated diagrams. By-products of use (patterns of wear) in the physical environment, adaptions for use (changes made post-occupancy by management and staff), staff morale, and the ease at which staff apparently performed work functions are examples of the kinds of information that were recorded. To suggest future issues for exploration, the systematic observation of the facility was conducted over a two month period, involving approximately eight hours of weekly observation. Observations were scheduled to include various times and days of the week. The documentation helped describe the ways in which the physical environment of the facility was used, how the facility was managed, and identified concerns about the setting to be explored in later research.

Measures

MEAP

To measure environmental resources of the long-term care facility, the Multiphasic Environmental Assessment Procedure (MEAP), developed by Moos and his associates, was employed (Moos & Lemke, 1984). The MEAP consists of various instruments that allow the researcher a variety of tools for collecting data. The measuring tools help describe the architectural, policy, suprapersonal, and social climate of the facility, and are used in conjunction with one another to quantitatively assess the long-term care setting. The MEAP measures the environmental resources of a sheltered care setting in terms of these four domains. Normative data representing 244 facilities are available for comparison (Moos & Lemke, 1988). For the purpose of this research,

three instruments of the MEAP were used. They included the "Physical and Architectural Checklist," (PAF), "Policy and Program Information Form," (POLIF), and the "Sheltered Care Environmental Scale" (SCES). The "Resident and Staff Information Form" (RESIF) was not employed because it measured the extent to which services and activities provided by the facility are used by residents and was not germane to the objectives of this study. This study is focused on staff activities, and while residents were observed, it was an outcome of staff function. The "Rating Scale" (RS) obtains information about the facility from independent observations. This outside evaluation was not appropriate for this research.

The researcher completed direct observations of objective physical characteristics, using the "Physical and Architectural Features Checklist" (PAF), which focuses on the availability of design features rather than their utilization. The PAF assesses eight dimensions through questions about the facility's location, its external and internal physical features, and space allowances. The eight dimensions are: 1) Community Accessibility; 2) Physical Amenities; 3) Social-Recreational Aids; 4) Prosthetic Aids; 5) Orientational Aids; 6) Safety Features; 7) Staff Facilities; and 8) Space Availability. These dimensions are described in Table 1. The PAF provides the researcher with an instrument to quantitatively describe the facility's architectural features in an accurate, complete and replicable way. The objectivity of the PAF used in conjunction with the exploratory observations provided a more complete description of the long-term care facility. See Appendix A for a complete description of the dimensions assessed using the PAF.

Table 1. Physical and Architectural Features Checklist (PAF) Subscale Descriptions and Item Examples.[1]

1. Community Accessibility	Measures the extent to which the community and its services are convenient and accessible to the facility. (Is there a grocery store within easy walking distance? Is there a public transportation stop within easy walking distance?)
2. Physical Amenities	Measures the presence of physical features that add convenience, attractiveness and special comfort. (Is the main entrance sheltered from sun and rain? Are the halls decorated?)
3. Social-Recreational Aids	Assesses the presence of features that foster social behavior and recreational activities. (Is the lounge by the entry furnished for resting or casual conversation? Is there a pool or billiard table?)
4. Prosthetic Aids	Assesses the extent to which the facility provides a barrier-free environment as well as aids to physical independence and mobility. (Can one enter the building without having to use any stairs? Are there handrails in the halls?)
5. Orientational Aids	Measures the extent to which the setting provides visual cues to orient the resident. (Is each floor or corridor color coded or numbered? Is a map showing community resources available in a convenient public location?)
6. Safety Features	Assesses the extent to which the facility provides for monitoring of communal areas and features for preventing accidents. (Are the outside walk and entrance visible from the office or station of an employee? Are there call buttons in the bathrooms?)
7. Staff Facilities	Assesses the presence of facilities that aid the staff and make it pleasant to maintain and manage the setting. (Are the offices free of distractions from adjacent activities? Is there a staff lounge?)
8. Space Availability	Measures the number and size of communal areas in relation to the number of residents, as well as size allowances for personal space. (How many special activity areas are there? How large are these areas all together? What size is the smallest per person closet area?

[1]Moos and Lemke (1988), p. 14.

The next measure used was the "Policy and Program Information Form" (POLIF), which assesses nine dimensions, including questions about the types of rooms or apartments available, the way in which the facility is organized, and the services provided for residents. The nine dimensions include: 1) Expectations for Functioning; 2) Tolerance for Deviance; 3) Policy Choice; 4) Resident Control; 5) Policy Clarity; 6) Provision for Privacy; 7) Availability of Health Services; 8) Availability of Daily Living Assistance; and 9) Availability of Social-Recreational. They are described in Table 2. The nine dimensions fall into three groups. The first group of two dimensions reflect the extent to which behavioral requirements are imposed on residents. The second group of POLIF dimensions, which measures the balance between individual freedom and institutional order and stability, is represented by the next four dimensions. The third set of POLIF dimensions measures the availability of services and activities and is represented by the remaining three dimensions. The POLIF provides for the researcher a tool to quantitatively describe aspects of the institutions' policies and services. The POLIF survey was completed in an interview with the administrator and took approximately one hour. See Appendix B for a complete description of the dimensions assessed using POLIF.

The facility's social environment was documented using the "Sheltered Care Environment Scale" (SCES), which assesses staff members' perceptions of seven characteristics of a facility's social environment. They include: 1) Cohesion; 2) Conflict, which represents relationship dimensions; 3) Independence; 4) Self-Exploration, which represents personal growth dimensions; 5) Organization; 6) Resident

Table 2. Policy and Program Information Form (POLIF) Subscale Descriptions and Item Examples.[1]

1.	Expectations for Functioning	Measures the minimum capacity to perform daily living functions that is acceptable in the facility. (Is inability to clean one's own room tolerated? Is incontinence tolerated?)
2.	Tolerance for Deviance	Measures the extent to which aggressive, defiant, destructive, or eccentric behavior is tolerated. (Is refusing to bathe tolerated? Is pilfering or stealing tolerated?)
3.	Policy Choice	Reflects the extent to which the facility provides options from which residents can select individual patterns of daily living. (Is there a curfew? Are residents allowed to drink a glass of wine or beer at meals?)
4.	Resident Control	Assesses the extent of formal institutional structures that provide residents with a voice in running the facility and the influence that residents have over policy. (Is there a residents' council? Are residents involved in deciding what kinds of new activities or programs will occur?)
5.	Policy Clarity	Measures the extent of formal institutional mechanisms that contribute to clear definition of expected behavior and open communication of ideas. (Is there a handbook for residents? Is there a newsletter?)
6.	Provision for Privacy	Measures the amount of privacy given to residents. (How many residents have private rooms? Are residents allowed to lock the doors to their rooms?)
7.	Availability of Health Services	Measures the availability of health services in the facility. (Is there an on-site medical clinic? Is there physical therapy?)
8.	Availability of Daily Living Assistance	Measures the availability of services provided by the facility that assist residents in tasks of daily living. (Is there assistance with personal grooming? Is dinner served each day?)
9.	Availability of Social-Recreational	Assesses the availability of organized activities within the facility. (How often is there outside entertainment? How often are there classes or lectures? How often are there parties?)

[1]Moos and Lemke (1988), p. 26.

Influence; and 7) Physical Comfort, which represents system maintenance and change dimensions. These dimensions are further described in Table 3. The SCES perceptions supplied the researcher with an objective perspective on the facility's social environment. Persons who work in a setting can provide valuable information about their work environment and its social aspects. See Appendix C for complete dimensions assessed using SCES.

In addition, the MEAP Ideal and Expectation instrument was used to parallel the previous measurement of the design, policy, and social characteristics by tapping individual preferences regarding the long-term care facility. The PAF, POLIF, and SCES are reworded in a questionnaire format to elicit information on preferences of management and staff about their long-term care facility. For example, the PAF item "Are the halls decorated (for example, with pictures or plants)?" is reworded as "Should the halls be decorated (for example, with pictures or plants)?" Responses for the PAF and POLIF are measured on a 4-point scale varying from "not important" to "desirable," "very important," and "essential." The SCES uses a yes/no format. See Appendix D for a complete description of the dimensions of the PAF, POLIF, and SCES Ideal and Expectations instrument.

The actual physical characteristics (PAF), policies and program (POLIF) and social environment (SCES) can be compared with the preferences (Ideal and Expectations) of management and staff regarding these characteristics. Thus the MEAP measuring tools not only provide additional descriptive information of the long-term care facility, but also contrast the views of owners, administrators, and staff of the

Table 3. Sheltered Care Environment Scale (SCES) Subscale Descriptions and Item Examples.[1]

	Relationships Dimensions
1. Cohesion	Measures how helpful and supportive staff members are toward residents and how involved and supportive residents are with each other. (Do residents get a lot of individual attention?)
2. Conflict	Measures the extent to which residents express anger and are critical of each other and of the facility. (Do residents ever start arguments?)
	Personal Growth Dimensions
3. Independence	Assesses how self-sufficient residents are encouraged to be in their personal affairs and how much responsibility and self-direction they are encouraged to exercise. (Do residents sometimes take charge of activities?)
4. Self-Exploration	Measures the extent to which the residents are encouraged to openly express their feelings and concerns. (Are personal problems openly talked about?)
	System Maintenance and Change Dimensions
5. Organization	Assesses how important order and organization are in the facility, the extent to which residents know what to expect in their day-to-day routine, and the clarity of rules and procedures. (Are activities for residents carefully planned?)
6. Resident Influence	Measures the extent to which the residents can influence the rules and polices of the facility and the degree to which the staff directs the residents through regulations. (Are suggestions made by the residents acted upon?)
7. Physical Comfort	Taps the extent to which comfort, privacy, pleasant decor, and sensory satisfaction are provided by the physical environment. (Can residents have privacy whenever they want?)

[1]Moos and Lemke (1988), p. 48.

facility. Such comparisons may help generate discussion among management and staff about ways to promote congruence within their facility and facilitate effective management. Information concerning the actual and preferred characteristics of the facility also can be used to help identify areas where change efforts may be fruitful (Moos & Lemke, 1984).

The 70 staff members were recruited as volunteer respondents for the SCES, and PAF, POLIF, and SCES Ideal and Expectations forms. The 37 staff members who completed all questions represented 42% of the employees. The administrator encouraged all staff to take part in the survey; however, he was explicit in making their participation voluntary. Of the 37 staff members responding, 89% were female employees and 11% male employees. This ratio is indicative of the entire facility. The maximum length of employment was 4 years, which was represented by 1 respondent. Employment length was predominantly under 18 months (80%). Over 18 months was represented by 20% of the employees. Thus, the modal respondent was female with less than 18 months employment at the facility.

Facility Management Questionnaire

To describe the facility management of the long-term care facility, information was elicited by-in depth interviews with the administrator. The systematic observation of the facility prompted many questions regarding resident needs and how the facility responds to such needs (i.e., "What type of orientation do you provide for residents?" "Do residents have difficulty locating their rooms?" "What techniques do you use to help them?"). In addition, questions not included in the POLIF were used to help

clarify the organization's intent regarding policies, practices, and procedures, and to determine what satisfied specific goals and expectations of the organization (i.e. "What is the mission of the organization?" "What is the protocol for management and staff?" "How are growth and change managed?"). Questions regarding physical environment considerations as they relate to facility management also were addressed (i.e., "Does the design and arrangement of the facility make staffing easy or difficult?" "What were the criteria for selection of furniture and finishes?"). Questions were developed on the basis of an unpublished facility management proposal (Thompson, 1992). See Appendix E for complete interview questions (Thompson, 1992).

CHAPTER III

INTERVIEW AND OBSERVATION RESULTS

The description of the physical environment and facility management includes qualitative data that were documented through the systematic observations of the facility and an interview with the administrator, as well as quantitative data that were measured and documented by the MEAP. This chapter will focus on the qualitative data obtained through observations and interviews and encompasses both external and internal areas of the long-term care facility. The information obtained through the interview first provides a review of the facility's design and management policies through the first four years of operation. Next, observations of the facility's arrangement of rooms, furniture, and equipment, as well as ambient conditions, including lighting, sound, color, temperature, and air are noted. Management and staff behaviors, as they related to the physical environment and facility management of the long-term care facility, also are discussed. The questions addressed are:

1) What physical features and management decisions are characteristic of this long-term care facility?
2) How does the physical environment appear to affect the management process of this facility?

A framework developed by Cohen and Weisman (1991) to evaluate dementia units within long-term care settings was used as an aid to help organize the observations from the case study. Because many of the dimensions are appropriate for cognitively intact residents as well, and statistics show that over 50% of residents of long-term care facilities suffer from some form of dementia, it was used as the basis for evaluation. The structure of the framework includes organizational, architectural, and social parameters, and is further comprised of the following subheadings to provide a systematic description of the physical environment and management:

A. Building Organization: 1) activity spaces; 2) wandering spaces; 3) outdoor spaces; 4) other living things; 5) public and private spaces.

B. Architectural Attributes: 1) image; 2) negotiability; 3) familiarity; 4) stimulation.

C. Social Environment: 1) entry; 2) shared spaces; 3) staff areas; 4) resident rooms; 5) bathing; 6) toileting rooms.

Because previous research has indicated that a homelike environment, created by the use of appropriate materials and finishes typical of one's home, may provide a more supportive environment for residents and staff, the residential qualities of each attribute were considered. In addition, how well these attributes supported behaviors typical of a residential setting (such as the availability of a kitchen) was observed.

Observations were made of the assisted-living and skilled nursing areas of the facility, with greater emphasis on the skilled nursing areas. Because residents were most

often in their private apartments and staffing was minimal, assisted-living provided fewer opportunities for observing behavior.

Interview

The following discussion summarizes the viewpoint of the administrator. According to him, the mission of this particular long-term care facility is to provide resident satisfaction by providing quality care. The facility aspires to fulfill all needs and expectations by incorporating a teamwork approach involving employees, family members, and residents. Aware that needs and expectations continue to change, the facility embodies a flexible strategic plan for its organization. The flexible plan has allowed the facility to evolve as industry policies and resident and staff needs have changed. It looks to the future as well as the past for guidance in providing new and innovative ways to improve resident lifestyles and employee relations, while maintaining cost containments. Recently, the addition of an independent living area has been discussed. Owners and the administrator feel that by adding duplexes or apartments, the facility would then offer a complete continuum of care: 1) skilled nursing, 2) intermediate care, 3) assisted-living, and 4) independent living. Because the facility is located on 18 acres, the site could accommodate future expansion. The administration emphasized that any expansion or shifts in the facility's design and management would take place only after appropriate planning. Owners and administrator are not prepared to take risks by disrupting a facility they feel runs effectively.

The long-term care facility considered all types of users (i.e., residents, including those experiencing dementia or incontinence, family, staff) when designing the facility.

At the present time, residents with some form of dementia and incontinence make up over 50% of those living in the facility. The administrator indicated he felt the design, arrangement, and finishes of the current facility work well to enable staff ease in the provision of care for all residents, and that operational and administrative tasks are performed effectively as well. For example, the carpeting limits noise for residents, is easily cleaned, and helps to lessen back and leg fatigue of employees. Linen and janitorial closets in each corridor also make maintenance easier for staff. Visitors also feel comfortable with the new, clean, and well appointed residential environment.

The administrator stated that residents are charged according to the level of care provided. The facility incorporates three levels: light, medium, and heavy. All levels of residents are integrated throughout the skilled nursing facility. The facility's goal, emphasized by the administrator, is to limit, as much as possible, the separation of low and high functioning residents. However, some segregation has evolved. As the residents continue the aging process and require more care, the north wing has housed more residents requiring heavy care. By situating a higher staff-patient ratio only within one wing, costs can be contained. The administrator believed that the staffing issue and the need for efficiency will be a factor in the design of future facilities. As health care costs increase, facilities will be forced to further segregate residents according to care needs. This could be done by designing separate buildings for different types of environments. For example, a facility just for heavy-care, light care, or dementia, might provide more cost-efficient care, but also may limit resident satisfaction.

The researcher feels the administrator plays a very involved role in the facility management of this long-term care facility. He is very knowledgeable in the physical and operational aspects, such as maintenance and servicing of equipment and furniture. In addition, understanding of management aspects such as business, programmatic, staff, and resident objectives, make him very effective in this role.

The administrator oversees all hiring of employees and indicated he favors individuals with previous experience in the nursing home industry. All employees take part in some in-house training for their positions and are evaluated at least once each year. The administrator explained that staffing requirements were regulated by the state and that his facility was in compliance with such regulations. When comparing the researched facility with others in the organization, the administrator indicated staff turnover in his facility was similar. He also indicated it is difficult to accurately measure staff turnover rates of a new facility. Only after several years is an established staff base acquired. Employees have developed social and financial ties to the organization and are less likely to leave. The administrator suggested that he expected staff turnover would more than likely be lower since the early indicators show the facility already is average. The facility also depends on outside resources to provide services for residents. Volunteers come in weekly to meet additional needs of residents. A librarian, music director, and driver participate in providing services for residents on a volunteer basis.

Observations Regarding Building Organization

Activity spaces, wandering spaces, outdoor spaces, other living things, and public and private spaces are the five guidelines used to describe the building organization of

the long-term care facility. They refer to variables that are physical in nature. This includes discussion of the arrangement of spaces and their relation to each other, as well as to management and staff. Providing a reference to the discussion is Figure 2 (floor plan).

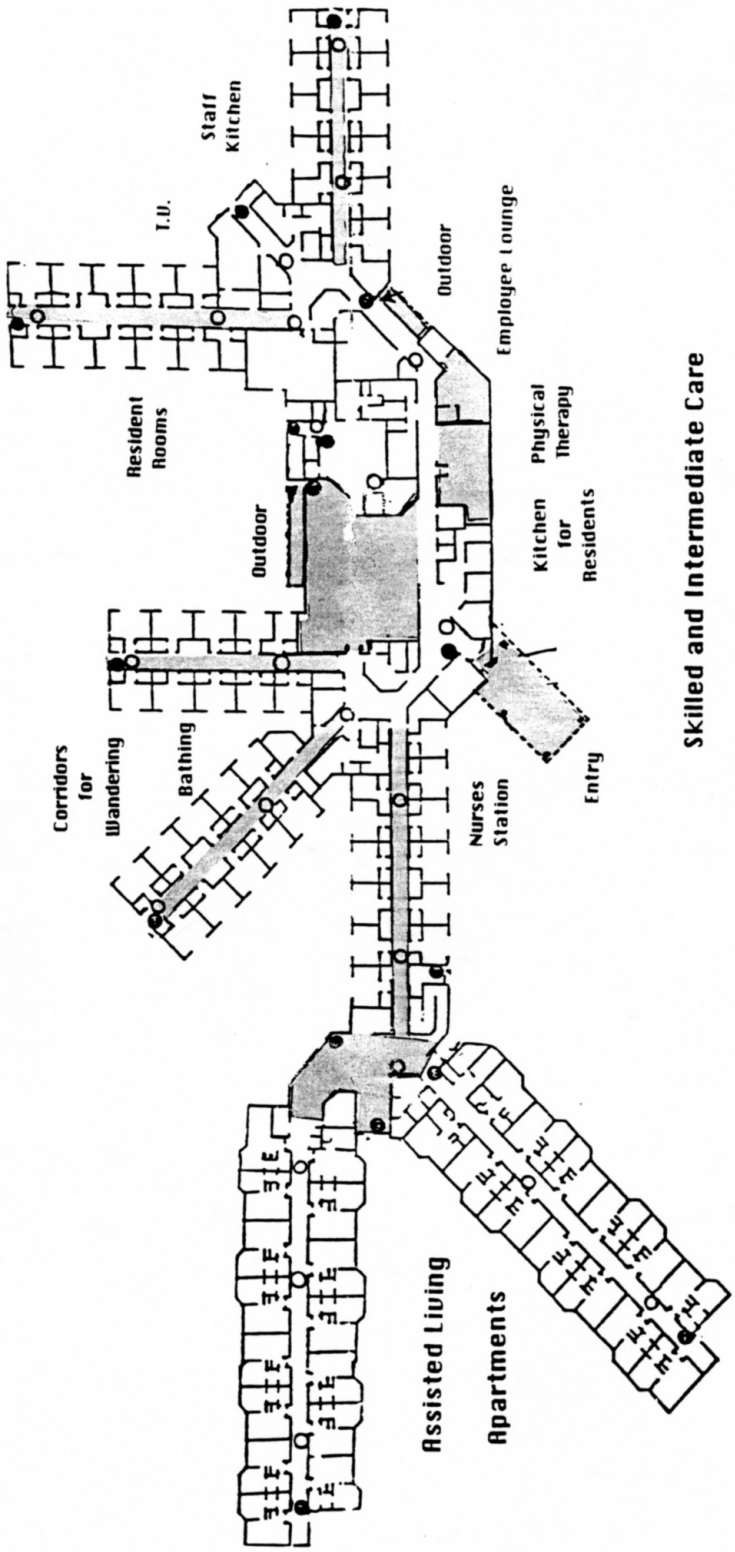
Activity Spaces

The setting afforded a variety of activity spaces. Both the assisted-living and skilled nursing areas offered a large area which served as a multi-purpose space. This room functioned as a dining room, living room, music room, exercise room, card room, and the television viewing room. Smaller intimate spaces also were available for TV viewing and visiting.

The large living and dining spaces were frequently used and seemed to be a hub for all activities for staff and residents. The size was more indicative of an institutional setting rather than residential. However, the furniture placement helped scale the space down and form more intimate groupings for activities. The wide use of carpeting and acoustical coverings on the walls helped control obtrusive sounds which are usually associated with a large area. Because of the central location of the space, residents were easily monitored. They also could observe or participate in activities taking place. The intimate T.V. viewing room was mostly used by persons living on the adjoining wings. This space also provided easy monitoring by staff as well as easy observation by residents.

In addition, the skilled nursing section included a domestic kitchen, beauty shop and physical therapy room, which provided activity alternatives for residents. These

Figure 2. Floor plan shaded to identify building organization of long-term care facility.



spaces were used on a more organized basis. Only activities planned by staff were performed here, in contrast to both planned and spontaneous activities in the large living areas. The assisted-living area provided individual kitchens within each apartment. However, most of the residents liked the social aspects of group dining and only infrequently made use of their individual kitchens.

Wandering Spaces

Wandering is a common behavior of people suffering from dementia and was observed frequently in this facility where a high number of residents in skilled care experience this problem. Wandering paths were situated in each corridor and demarcated by a different floor covering and hand rails as a way to cue residents to the areas. The corridors were visible from the nurses station to ensure ease in observing residents. The lighting was indirect and fluorescent and helped provide a differentiation from other areas where fluorescent task lighting was used. The location of the wandering pathways adjacent to the resident rooms seemed to compromise privacy and increase noise in the resident rooms. The corridors did not lead to any organized activity area, but rather ended at exit doors and the nurses stations. Residents were often seen behind the work area, and at this facility unless they were distracting to staff, their intrusion was allowed. Staff, on most occasions, appeared to be accepting of the residents' wanderings, while also encouraging them to relocate.

Outdoor Spaces

The outdoor spaces of the facility, while being impeccably maintained, were not easily accessible to residents. Two protected locations were situated near the skilled nursing section (see to Figure 3). Locked doors made access difficult and access was not encouraged by staff. Additional outside space did not provide protected walkways for residents and was used mainly by staff. A garden on the site was for staff use only. Staff members implied most residents preferred to stay inside and only occasionally expressed a desire to venture outside. Management also shared this view because of their concern for the safety of the residents. The lack of encouragement from staff to explore these areas limited outdoor opportunities for resident and family members. For many, the outdoor spaces would have been reminiscent of their past homes. However, views to the outside were provided in many interior areas. Corridors all ended with a viewing area to the outside, and most activity areas featured large glassed areas. Resident rooms also provided large bay windows, which helped increase visual connections to the outdoors.

Other Living Things

Because most people living in this setting are dependent on others, their ability to actually care and nurture another living thing may be limited. This human need can sometimes be fulfilled through the care of plants and animals. The entry of the long-term care facility was visually enriched by the incorporation of plants. However, in the entry it was difficult for residents to interact because the plants were bordered by a short two

Figure 3. View of Outside Area

foot wall that limited access to wheel chair bound residents. This limited any therapeutic value to the residents and was a potential safety hazard for residents, staff, and visitors. A skylight situated above the plants brought the sunlight inside and allowed them to flourish; however, other than an aesthetic residential contribution, they seemed to provide no therapeutic stimulation to the residents. The bay windows in the residents' rooms provided more functional and stimulating areas for plant maintenance and often were used for that purpose. Both residents and staff were observed nurturing the plants and commenting on their growth and beauty. No pets were allowed or a regular part of the activity programs.

Public and Private Spaces

The long-term care facility offered only the residents' rooms as a private space for residents to retreat and be alone. In a semi-private arrangement, this was seldom possible. There was, however, a variety of public spaces where all persons could enter and exit at will. They included the entry living and dining room, domestic kitchen, nurses station, private living and dining room, and corridors. Some of these spaces offered periodic scheduled activities for residents and staff. Staff made use of a break room and outdoor spaces for privacy from the residents and other staff. Comments by the administrator inferred that private spaces were too numerous, easily accessible by staff, and often abused by staff. Because of the limited and abrupt transitions in and out of public and private areas (i.e., corridors to rooms) the control of the public and private spaces by residents and staff seemed lacking in this particular setting.

Architectural Attribute Observations

Image, negotiability, familiarity, and stimulation are guidelines that are salient to the description of the physical environment and facility management of the long-term care facility. These design characteristics are functions of the environment and reflect the interaction of physical, organizational, and social variables. The design characteristics influence the spaces within the facility and may enhance ties to familiar residential environments. For example, furnishings and finishes more typical of those found in a residential setting and management practices that are supportive of such residential activities (see Figure 4) may help create more familiar environments for residents.

Image and Negotiability

The facility is located in a sparsely developed area, surrounded by open fields, and because of the tranquility it affords, is reminiscent of domestic country living. The external imagery of this particular long-term care facility attempted to adopt a noninstitutional and residentially inspired exterior by using materials indicative of a single family home. Wood and brick were used together with bay windows and deep overhangs to provide architectural variety and enhance the residential theme. However, the large unbroken building mass contradicts the homelike imagery developed by the selection of residential materials and setting. In that respect, the facility's exterior is more indicative of an institutional setting.

Once inside the facility, evidence of even greater attention to "home like" features is evident. The entry provides a small area for waiting with traditional residential furniture and upholstery. Wide use of carpeting, wallpaper, art work, draperies, fabric

Figure 4. Small dining room of long-term care facility.

upholstery, and wood railings also enhance the noninstitutional appearance. Color schemes are also varied in an attempt to promote "homelike" qualities.

The long, double-loaded corridors are institutional in design. To enhance way finding cues, a small sitting alcove is included halfway down each corridor. Each of the corridor and alcove areas varied their color schemes. However, the contrast between the different corridors was not great enough to ensure effective orientation. New residents and staff alike had difficulty in deciphering one corridor from another.

Familiarity

Providing familiar things that were personal to the residents was encouraged only in the residents' rooms. Personal furniture and artifacts often were used to decorate individual rooms; however, the public areas were void of residents' furnishings and personal reminders of their previous homes. Public areas were more staff oriented and probably more accommodating for their work environment. For example, nurses stations were located at the ends of each corridor, allowing for ease in supervision, but also providing a nonfamiliar and more institutional environment for the residents. Familiar activities that might provide association with the past were not observed. Baking and gardening activities were performed by staff with little participation from residents.

Stimulation

The interior appointments provided variety and flexibility for residents and staff. The wide use of carpeting and residential style wall coverings not only provided visual and textural richness, but the acoustical properties of these finishes moderated background

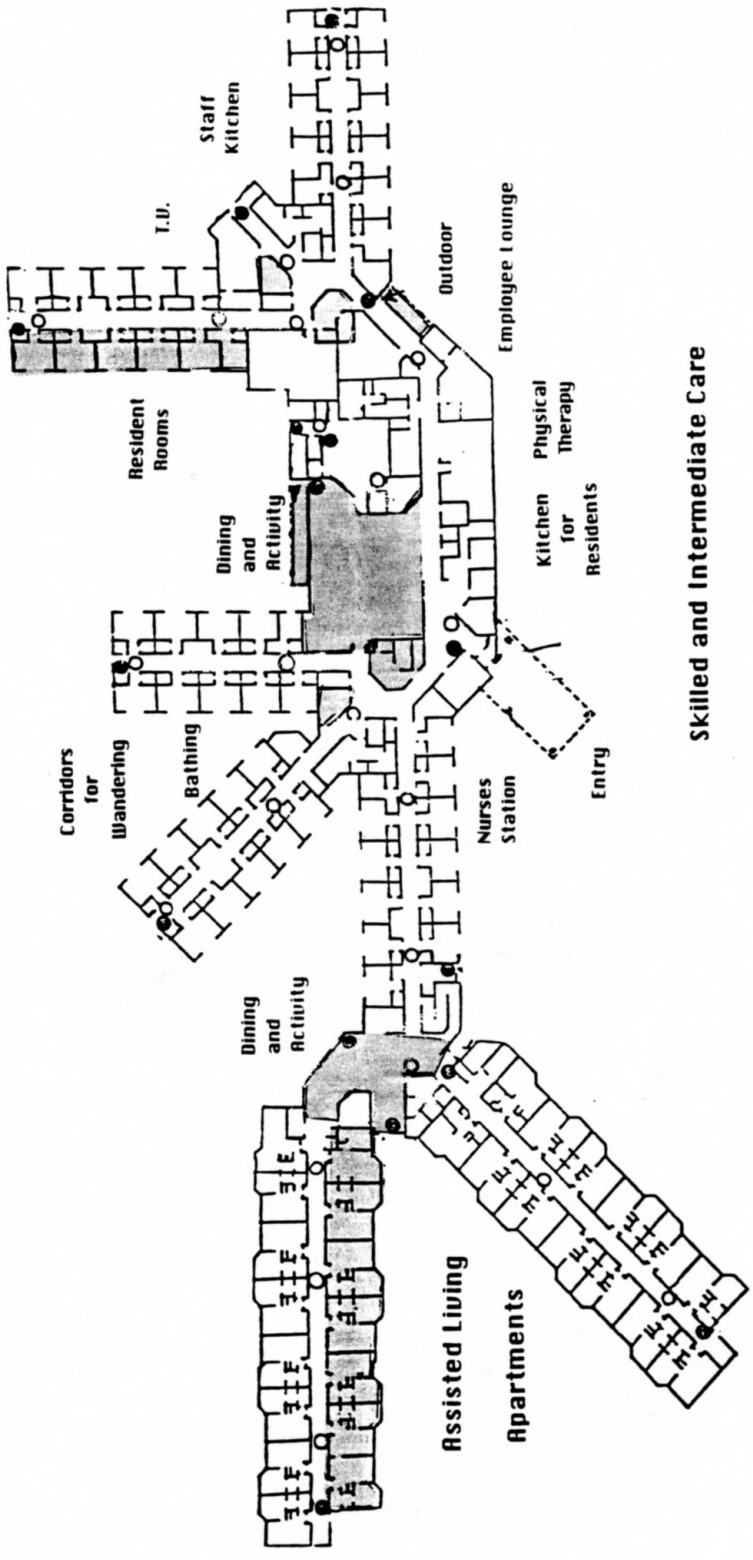
noise and thus enhanced speech comprehension. Blinds and soft valances on all windows as well as controlled lighting in corridors, helped to regulate glare. The open dining areas also provided the users with opportunities for olfactory experiences. On many days, unregulated audio sounds, coupled with the lack of provision for a private space to which to retreat decreased the therapeutic aspects of the environment. The intercom, alarm system, and resident call lights were often activated and seemed to increase stimulation and agitate residents as well as staff. An alarm sounded every time the entry doors were opened unless the code numbers were entered before operating the door. Only regular visitors were aware of the code. This seemed to add further work for the receptionist in disarming the alarm.

The loss of control for stimulation occasionally resulted in aggressive and distraught behavior by residents. Consequently, staff intervened to help calm residents. Family members were sometimes seen locating staff to answer the resident call lights. While the facility offered auditory and visual stimulation, opportunities for residents to control such stimulation was lacking.

Social Environment Observation

The final set of guidelines relate to specific spaces where social activities take place. Activity space for staff as well as residents were observed and include the following areas: entry, shared spaces (i.e., kitchen, dining, activity area), staff areas, resident rooms, bathing, and toileting area (see Figure 5).

Figure 5. Floor plan shaded to identify social environment of long-term care facility.



Entry

The entry of the long-term care facility was small in scale compared to the total linear expanse of the facility. This protected area helped contribute to a residential feeling. The entry doors were not automatic but were large enough for easy accessibility of wheelchair-bound residents. Once inside the facility, an area for live plants helped make the transition inside a welcoming experience. A floor plan of the facility provided an overview of the general layout of the building and aided in wayfinding and orientation for residents and family. The reception desk was within view of the entry doors but was positioned far enough away to remain unobtrusive and retain the domestic image.

Shared Spaces

The largest space that was utilized for a variety of different functions was the main dining and living room. This space was centrally located and served a multitude of functions for residents and staff. Besides dining and television viewing, this space was used for exercise classes, staff meetings, and musical entertainment. Passive observation by residents without participation in the ongoing activity also was observed. This room was heavily used by residents and staff even though its large size was not residential in scale. A more domestic ambience was found in the smaller living and dining room located off the entry. The smaller, more residential living, dining, and activity room was available to anyone who requested its use. Its residential ambience was supported by a traditional dining table and chairs and a chandelier centered over the table. Windows were treated with a valance and drapery, adding to the room's residential appearance. However, the use of this room was not encouraged because of the extra staff it would

involve. Family members and residents sometimes were observed celebrating birthdays and other festivities, but residents did not use the room alone. The assisted-living area also had a multifunctional area that served the same functions as the larger space in the main building. It also was heavily used by the assisted-living residents for various activities without staff and passive observation of ongoing events.

A kitchen for the residents' use was located adjacent from the main dining room. Occasionally, family members were observed warming food, but planned activities for residents were never witnessed. The assisted-living apartments all had their own kitchens. These were used on occasion, but most residents like the social aspects of group dining and looked forward to meals that were served for them.

Residents' Rooms

To most individuals, the most private region of one's home is where the activities of sleeping, dressing, and personal hygiene take place. However, because most residents in the facility share this space with someone else, this activity becomes a semi-private function. While each resident may create a personal space (i.e., storage and furniture) within their room, true privacy is never quite achieved unless the room is a private one. The location of the toilet and sink at the entry inhibits the privacy in toileting, but makes staff assistance more accessible.

Bathing Rooms

This facility had two large bathing areas that served all residents not living in the assisted-living area. The location of these areas was near the nurses station and laundry,

making the spaces very accessible for staff. Each bathing room had three showers, one tub, and a toilet and sink area. Both areas were very institutional in appearance. All surfaces were tiled and equipped with safety features such as grab bars and non-slip flooring. The only way to obtain some privacy was by drawing a curtain which divided each activity area. As many as four residents could be bathed at one time, which added to the maximum efficiency of the staff and the loss of privacy by residents.

Staff Areas

Numerous public and private staff areas were available to all employees. Department heads had their own private offices while other staff members shared work space. The nurses station provided as many as four semi-private work areas. Maintenance and kitchen personnel often were observed in the same specific location. This declaration of their personal territory defined their semi-private office. Work task completion within the facility seemed efficient because of these public and private offices. The facility also provided an employee's lounge and small kitchens off each wing for their use. Outside areas were also frequented by staff and allowed privacy for staff who did not have a private office. Individual outside territories seemed to be defined by staff members. The same staff were observed frequently in the same area during their breaks.

CHAPTER IV

MEAP RESULTS

This chapter provides additional quantitative knowledge regarding the long-term care facility through quantitative means. The following data were measured and documented by the Multiphasic Environmental Assessment Procedure (MEAP). First, the findings of the "Physical and Architectural Features" checklist (PAF) portion of the MEAP further describe the architectural climate of this particular facility and compare it to national norms. Next, the results of the "Policy and Program Information Form" (POLIF) give further insight regarding the policies and services of the organization, as well as compare the facility with national norms. Data concerning the social environment of the facility, which were measured by the "Sheltered Care Environment Scale" (SCES), will then be outlined, including the normative data.

Questions addressed are:

1) How do the physical environment (PAF) and management practices (POLIF) of this facility compare with the national norms?
2) What are the perceptions of the management and staff (SCES) regarding the design and management of the facility?

Finally, the results of the PAF-I, POLIF-I, and SCES-I, Ideal and Expectations survey, are discussed. Preference and needs of staff are compared to the actual physical,

policy, and social climate of the long-term care facility as well as the preferences of the administrator. When appropriate, results of the Ideal and Expectation Survey also are compared to the observations of the researched facility. Finally, the normative data will be included only as a means of ranking the preference of the researched facility with those of national averages. The questions addressed are:

1) Are preferences and needs regarding the design and management perceived to be the same for the long-term care facility and the staff?
2) How do the preferences and needs of the staff compare to the actual characteristics of the researched facility?

PAF Data Results

The Physical and Architectural Features (PAF) is composed of more than 175 individual items. In order to simplify the information, they have been organized into eight dimensions (see Table 1). The PAF focuses on the availability of such resources rather than on their utilization. Results of the single long-term care facility and the normative data are provided in Table 4. A graph comparing each dimension of the case study facility with national norms is also provided in Figure 6.

Community Accessibility

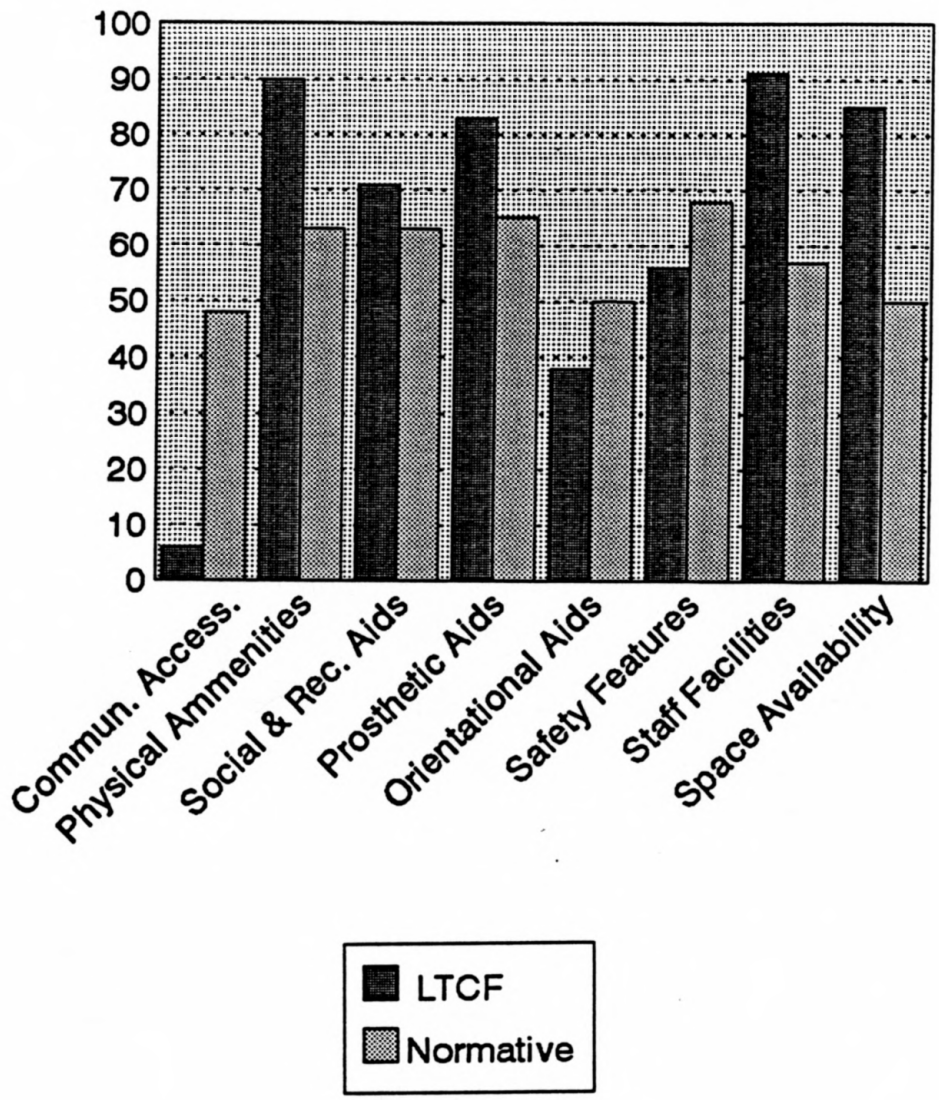
The first dimension, 'Community Accessibility', measured the resources from the surrounding community. This measurement reflects how easily the residents can acquire community based services (i.e., banks, library, etc.). 'Community Accessibility' was comprised of 16 questions. The long-term care facility studied had only one item (lights in the surrounding streets), thus obtaining a mean score of 6% (see Table 4). The

Table 4. Means of the PAF dimensions for the case study and the normative sample.

Dimension PAF	LTCF Case Study (N=1 facility) Mean	Normative Sample[1] (N=244 facilities) Mean
Community Accessibility	6	48
Physical Amenities	90	63
Social Recreational Aids	71	63
Prosthetic Aids	83	65
Orientational Aids	38	50
Safety Features	56	68
Staff Facilities	91	57
Space Availability	85	50

[1]Moos and Lemke (1988)

Figure 6. **The physical and architectural resource ratings for the long-term care facility studied and the normative ratings (Moos & Lemke, 1988) of 244 facilities.**



national norm reflected a score of 48%. 'Community Accessibility' for this particular facility fell well below the average and reflects a possible difference between the national averages and the facility's concern regarding the importance of physical integration between the facility and the surrounding community. Concurring with the findings, the semi-rural location of the long-term care facility would indicate that 'Community Accessibility' would be deficient.

Physical Amenities

The next dimension measured the presence of physical features that contribute to convenience, attractiveness, and comfort. This dimension was comprised of 30 questions. The long-term care facility studied had 27 items, lacking only a chapel, gift shop, and umbrella tables, thus obtaining a mean score of 90% (Table 4) compared to the normative score of 63%. 'Physical Amenities' for the particular facility were substantially higher than the national norm. This might indicate that the facility emphasizes 'Physical Amenities' by providing resources to support them. The absence of the chapel and gift store were compensated with services being held in the multifunctional living-dining area and vending machines for purchasing food. The lack of umbrella tables is not surprising given the facility's site location, which was vulnerable to winds, and the absence of encouraged outside activities that was observed earlier.

Social and Recreational Aids

This dimension measured the presence of physical features that nurture social interaction and recreational activities. This dimension was comprised of 28 questions.

The long-term care facility studied had 20 items, lacking eight aids that included games such as a shuffleboard game, pool table, and table tennis. The facility's mean score of 71% was again higher than the national norm of 63%. 'Social and Recreational Aids' for this facility also appear to be an area of emphasis regarding this long-term care facility.

Prosthetic Aids, Orientational Aids, Safety Features

The next three dimensions measured features of the physical environment that aid residents in daily living activities and in negotiating the environment of the long-term care facility. For example, the dimension 'Prosthetic Aids' measured the extent that physical independence and mobility were provided by the environment. This dimension was comprised of 24 questions of which the facility had 20. The mean score of 83 was once again higher than the national average of 65.

'Orientational Aids' measured the availability of visual cues, which could help orient the resident. The long-term care facility studied had 5 of the possible 13 items giving it a mean score of 38. 'Orientational Aids' for this facility were well below the national norm of 50. This might indicate the facility did not feel that the orientation of the residents was a major concern. While the results of prosthetic aids indicate the facility encouraged physical independence and mobility of its residents, the lower than average score on orientational aids indicate independence may be somewhat impeded because of the lack of visual cues to orient them.

'Safety Features' such as call buttons in the bathrooms, smoke detectors, good lighting, and monitored access was the next dimension measured. The facility had 9 of

the possible 16 items giving it a mean score of 56. The national norm for this dimension is 68, making this particular facility just below the national average. Not surprisingly, the safety items not available consisted of features that related to outside concerns such as the outside walk and entrance that were not visible from the lobby or reception desk. This result coincides with earlier observations that staff gave little encouragement to residents to venture outside.

Staff Facilities, Space Availability

The last two dimensions looked at the allowance of space for residents and staff functions. 'Staff Facilities' taps the presence of physical features that enhance the setting and make it more pleasant for staff. This dimension was comprised of 11 questions of which the facility had 10. The mean score of 91 was substantially above the average score of 57. This supports the researcher's previous observation of numerous public and private staff areas. This emphasis might indicate that the organization believed that such features might enhance staff morale and performance, and possibly contributes to the quality of resident care.

'Space Availability' assessed the amount of shared and personal space available to each resident. This dimension was comprised of 13 questions. The long-term care facility researched had 11 items, which gave it a mean score of 85. The national norm was 50, which was significantly lower than the researched facility measured. This would indicate the organization's belief that emphasizes the space available per resident is an important issue in obtaining resident satisfaction and lends support for the significantly high staff facilities as measured and observed by the researcher.

POLIF Data Results

The Policy and Program Information Form (POLIF) is composed of more than 150 individual items. In order to simplify the information they have been organized into nine dimensions (see Table 2). The POLIF focuses on the resident opportunities to participate in policy making and the availability of resident resources. Results for the single long-term care facility and the normative data is provided in Table 5. A graph comparing each dimension of the researched facility with national norms is also provided in Figure 7.

Expectations for Functioning and Tolerance for Deviance

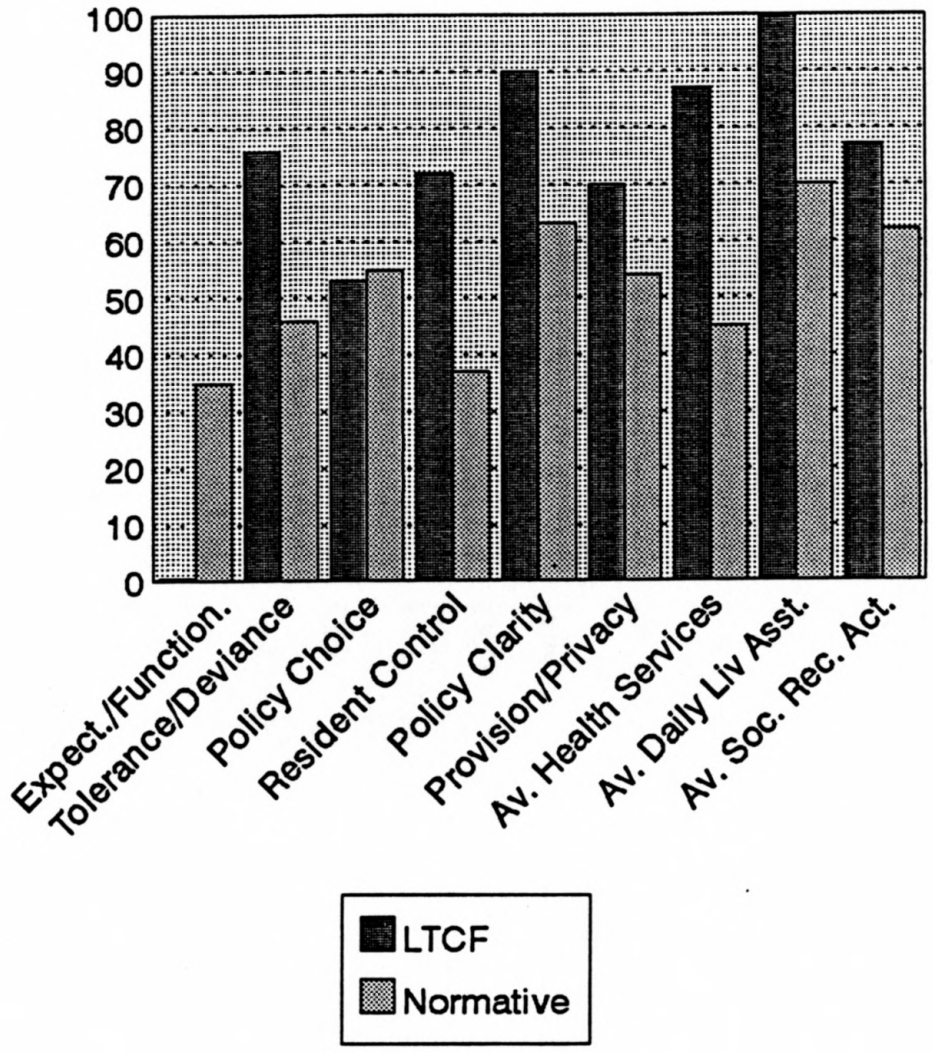
The first two dimensions are indicative of the degree the facility's behavioral requirements are imposed on residents. 'Expectations for Functioning' measured the minimum acceptable functional level of residents that is required by the facility to ensure their continued residency. The long-term care facility studied had 0 of 11 items, thus obtaining a 0%. The national norm reflected a score of 35%. 'Tolerance for Deviance' assessed the degree to which uncooperative or aggressive behavior is tolerated in the facility. The long-term care facility scored 86% in comparison to the national average of 46%. Both ratings of these two dimensions would indicate that staff in this setting are very tolerant of resident behaviors. This specific facility places no demands on residents with respect to independent functioning in daily activities and has a significantly higher than average tolerance for deviant behavior.

Table 5. Means of the POLIF dimension for the case study sample and the normative sample.

Dimension of POLIF	LTCF Case Study (N=1 facility) Mean	Normative Sample[1] (N=244 facilities) Mean
Expectation for Functioning	0	35
Tolerance for Deviance	76	46
Policy Choice	53	55
Resident Control	72	37
Policy Clarity	90	63
Provision for Privacy	70	54
Availability of Health Services	87	45
Availability of Daily Living Assistance	100	70
Availability of Social Recreational Activities	77	62

[1]Moos and Lemke (1988)

Figure 6. **Policy and program information resource ratings for the long-term care facility studied and the normative ratings (Moos & Lemke, 1988) of 244 facilities.**



Policy Choice, Resident Control, Policy Clarity, Provision for Privacy

The next four dimensions measured the balance between individual freedom and the institution's order and stability. 'Policy Choice' represented the options available to residents in the selection of daily routines (i.e., eating and bathing schedule). The long-term care facility studied had 10 of the 19 possible items. The score of 53% indicated the facility is about average in the degree of control they exercise over resident activities.

'Resident Control' measured the degree the setting provided formal opportunities for residents to influence the management and policy decisions of the facility. 'Resident Control' was comprised of 29 items. The setting studied had 21 items, thus obtaining a score of 72%. The average for this dimension is 37%. This result would indicate that residents exercise a significant amount of control over policies and procedures such as scheduled meetings to discuss complaints, help plan menus, and select activities.

'Policy Clarity' measured the degree that policies are clearly communicated. An example of clarity would be the formal use of handbooks and orientation programs. The dimension was comprised of 10 items. The long-term care facility had 9 items. The score of 90% was again higher than the national norm of 63%, which suggests that the institution provided many organized ways to clearly define its policies.

'Provision for Privacy' measured the privacy available to residents. The dimension represented a total of 10 items. The facility researched had 7 items, which resulted in a score of 70%. The national average for 'Provision of Privacy' is 54%, which is well below the long-term care facility rating. This would indicate the facility provided a setting with numerous areas to which residents can control the access of other

persons. The findings contradict the researcher's observations. However, all but three of the items in this dimension pertain to the availability of private bedrooms and bathrooms. Of the 108 residents, 41% had private rooms and baths. Of the 41%, the assisted-living area accounted for 63% of the private rooms and baths. Thus the dimension for privacy was scored significantly more favorable because the assisted-living was included in the research. The findings of the 'Provisions for Privacy' do support the earlier PAF dimension of 'Space Availability'. Significantly higher than average scores indicate the organization emphasized space availability of such areas for lounging activity and dining. These allowances show a high square footage per resident, which would concur with the higher than average score for 'Provisions of Privacy', but not necessarily with the researcher's observations. The results of the POLIF indicate that there exists limited "control" of public and private spaces for residents and staff.

Availability of Health Services, Daily Living Assistance, and Recreational Activities

These three dimensions measured the provision of various services and activities within the facility. 'Availability of Health Services' measured additional services that are provided by the facility (i.e., physical therapy, occupational therapy, personal counseling). There were a total of 8 items possible. The long-term care facility researched had 7 items for a score of 87%. 'Daily Living Assistance' also was measured. This included measuring items such as grooming, housecleaning, cooking, and shopping tasks. The facility scored 100% by obtaining all 14 of the possible items. Availability of social 'Recreational Activities' measured the opportunities for leisure and organized activities (i.e., art classes and parties). A total of 26 items were possible. The

long-term care facility had 20 for a score of 77%. All three of these dimensions scored well above the normative ratings, indicating the facility was strongly oriented toward providing such services and activities for its residents.

SCES Data Results

The Sheltered Care Environment Scale (SCES) is comprised of 63 yes/no items and assesses seven dimensions of the social environment of the long-term care facility (see Table 3). Each dimension is comprised of 9 questions regarding social parameters of the setting. The dimensions represent relationship, personal growth, and system maintenance and change of the facility. The SCES assesses the setting by asking staff individually about behavior in their facility. Whereas the PAF, and POLIF focus on objective information about the facility, the results of the SCES reflect the perceptions of 36 staff members and the administrator regarding the setting researched and compare it to national normative ratings as seen in Table 6. A graph comparing each dimension of the researched facility with national norms is provided in Figure 8, as well as a graph comparing staff and the administrator reports (Figure 9).

Cohesion and Conflict

The first two dimensions assessed relationships within the setting. The dimensions measured the involvement and support of staff members with residents. How involved residents are with each other was also assessed, as well as to what degree residents express anger and criticism of each other and the facility. Staff of the facility reported an average score of 59 on the 'Cohesion' dimension, which is lower than the

Table 6. Means and standard deviation of the SCES dimension for the case study sample and the normative sample.

Dimension SCES	LTCF Case Study (N=1 facility) Mean	SD	Normative Sample[1] (N=244 facilities) Mean	SD
Cohesion	59	11	72	12
Conflict	60	16	57	17
Independence	42	9	58	14
Self-Exploration	55	11	61	13
Organization	44	12	66	14
Resident Influence	66	12	60	12
Physical Comfort	80	11	76	15

[1]Moos and Lemke (1988).

Figure 8. **The 'Sheltered Care Environment' resource ratings for the long-term care facility studied and the normative ratings (Moos & Lemke, 1988) of 244 facilities.**

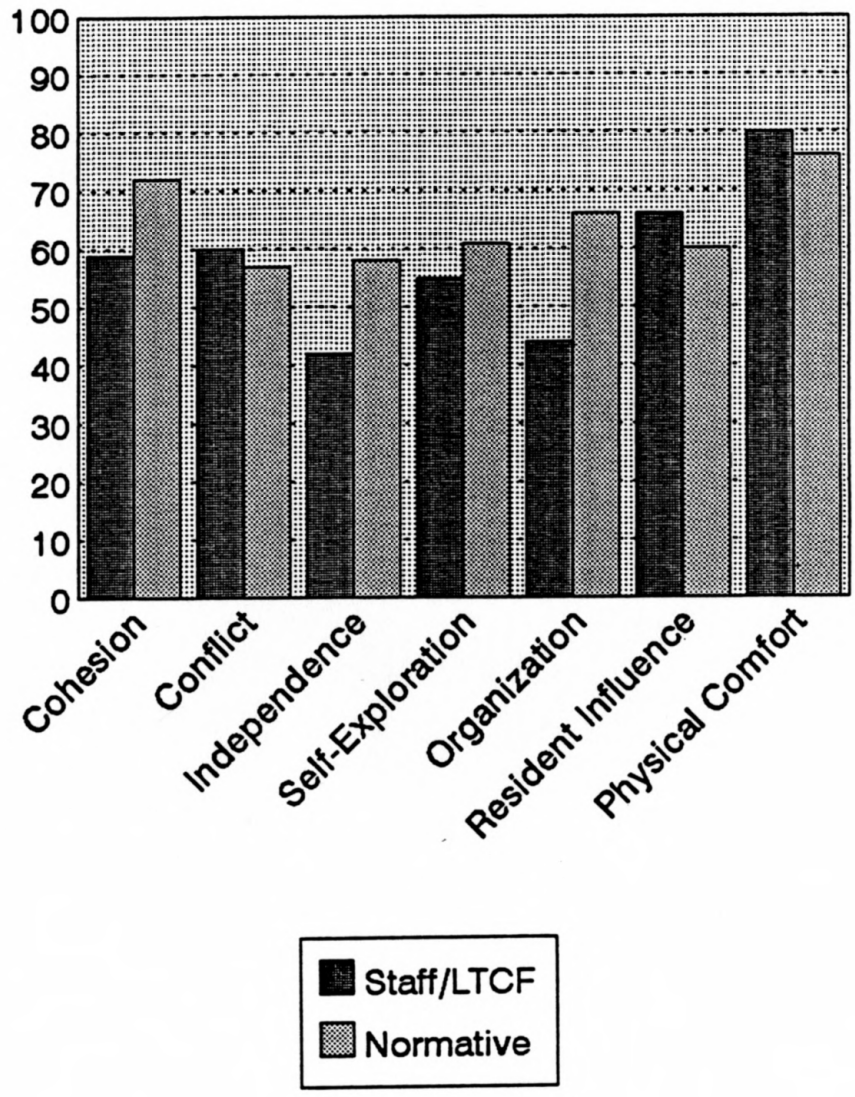
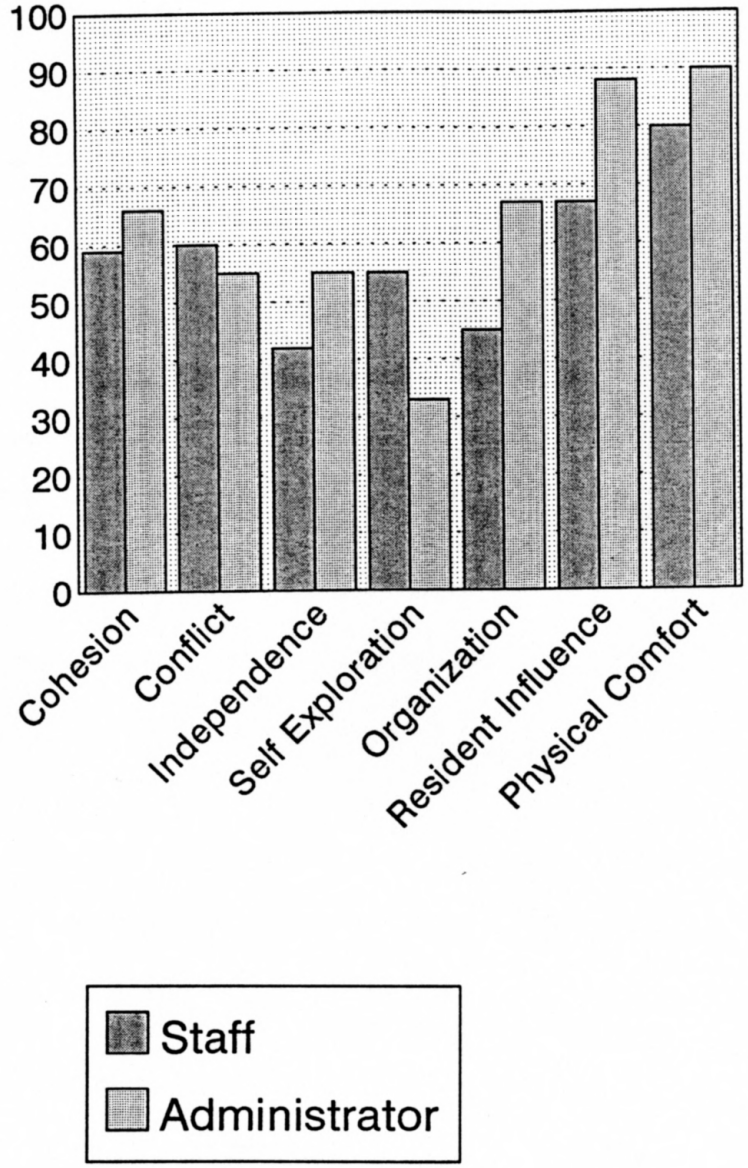


Figure 9. **The 'Sheltered Care Environment' resource ratings of the staff and administrator of the long-term care facility.**



national norm of 72. 'Conflict' was scored at a 60%, which is higher than the national norm of 57. This would indicate staff, when compared to national averages, see slightly more emphasis on conflict than cohesion.

Independence and Self-Exploration

These two dimensions assessed how personal growth is perceived by the administrator and staff. 'Independence' tapped the degree residents are encouraged to be self-sufficient (i.e., Do residents get a lot of individual attention?). 'Self-Exploration' tapped the degree residents are encouraged to openly express their feelings and personal concerns (i.e., Are personal problems openly talked about?). The staff in the setting researched reported lower than average emphasis on both dimensions. 'Independence' scored 42% compared to the national norm of 58%, and 'Self-Exploration' scored 55% compared to the national norm of 61%. These findings may indicate that staff provides little encouragement for residents to be self sufficient in their personal lives and concur with the POLIF Expectations for Functioning. The data indicate that the facility places no demands on residents with regard to independent functioning.

Organization, Resident Influence, Physical Comfort

The last three dimensions assess the system maintenance and change within the facility. 'Organization' measured how important order is to the facility and the degree to which residents' routines are scheduled (i.e., Are activities for residents carefully planned?). Staff reported a score of 44%, which is significantly lower than the national

norm of 60%. This would indicate the facility favored a more relaxed schedule and did not provide clear and concise rules and procedures for activities.

'Resident Influence' measures the degree residents can influence policy of the facility and how staff members restrict residents through regulation. 'Physical Comfort' measures the extent the physical environment provides comfort, privacy, pleasant decor, and sensory satisfaction. Both dimensions were reported by staff as having a slightly higher than average emphasis. 'Resident Influence' scored 66% compared to 60% national average. The higher than average score for 'Resident Influence' would correspond to the facility's allowance for 'Resident Control'. 'Physical Comfort' scored 80% compared to a national average of 76%. This concurs with the facility's emphasis on 'Physical Amenities'.

When comparing staff perceptions with the administrator's perception of the social environment, the administrator viewed the setting on most dimensions more positively than staff. 'Self-Exploration' and 'Conflict' were the only two exceptions, with the latter scoring only slightly below the staff score of 60%. 'Self-Exploration' was reported by the administrator as being significantly less emphasized. The administrator reported a score of 33% compared to the staff average of 55%. These findings may indicate that persons with more authority and responsibility in a setting may tend to be more positive in their reports.

PAF-I, POLIF-I, SCES-I Results

Having previously measured the design, program, and social characteristics of the facility, a parallel method for tapping staff preferences regarding these characteristics was

then employed. The Physical and Architectural Features Ideal Form (PAF-Form I), Policy and Program Information Form Ideal Form (POLIF-Form I), and the Sheltered Care Environment Scale Ideal and Expectation Form (SCES-Form I). measured staff preferences regarding these characteristics. The dimensions measured include most of the design, program, and social dimensions measured earlier. The only exception is the PAF-I does not include the space availability dimension. The PAF, POLIF, and SCES were reworded to provide information about the staff preferences for the design program and social features of the facility. Results of staff preferences and normative data are provided in Tables 7, 8, and 9. Comparison of the preferred characteristics and the actual characteristics of the setting are provided in Figures 10, 11, and 12.

PAF-1

The Ideal Form of the Physical and Architectural Features (PAF-1) measured the staff's reported preferences for design features of the long-term care facility. Figure 10 indicates the percentage of items rated "very important" or "essential" and compares the scores for the actual setting with staff preferences. 'Prosthetic Aids', 'Orientational Aids', 'Safety Features', and 'Staff Facilities' show a close agreement between the actual physical resources and those preferred by staff. The characteristics of the long-term care facility and staff response did not agree for 'Physical Amenities' and 'Social-Recreational Aids'. The dimensions of the setting were considerably less important to staff than the actual environment measured. Staff also differed from the actual facility with regard to 'Community Accessibility'. Staff indicated that the this dimension was more important than the actual facility, as described by the PAF. The measure more accurately concurs

Table 7. Means of the PAF-I dimensions of staff for the facility, the normative sample of staff, and actual PAF characteristics of the facility.

Dimension PAF-I	Staff Sample (N=37) Mean	Normative[1] Sample (N=98) Mean	PAF Results (N=1) Actual
Community Accessibility	47	45	6
Physical Amenities	58	57	90
Social-Recreational Aids	34	49	71
Prosthetic Aids	88	61	83
Orientational Aids	27	53	38
Safety Features	64	71	56
Staff Facilities	75	65	91

[1]Moos and Lemke (1988).

Table 8. Means of the POLIF-I dimensions of staff for the facility, the normative sample of staff, and actual POLIF characteristics of the facility.

Dimension POLIF-I	Total Staff Sample (N=37) Mean	Normative[1] Staff Total Sample (N=98) Mean	POLIF Results (N=1) Actual
Expectation for Functioning	26	54	0
Tolerance for Deviance	32	21	76
Policy Choice	48	70	53
Resident Control	70	56	72
Policy Clarity	86	62	90
Provision for Privacy	86	67	70
Availability of Health Services	87	45	87
Availability of Daily Living Assistance	66	54	100
Availability of Social Recreational Activities	61	65	77

[1]Moos and Lemke (1988).

Table 9. Means of the SCES-I dimensions of staff for the facility studied, the normative sample of staff, and the actual SCES characteristics of the facility.

Dimension SCES-I	Total Sample (N=37 Staff) Mean	Normative[1] Total Sample (N=98 Staff) Mean	SCES Results (N=1 Staff) Actual
Cohesion	90	78	59
Conflict	36	46	60
Independence	88	71	42
Self-Exploration	88	64	55
Organization	88	74	44
Resident Influence	77	61	66
Physical Comfort	77	82	80

[1]Moos and Lemke (1988).

Figure 10. Physical resources of the facility and preferences of current staff.

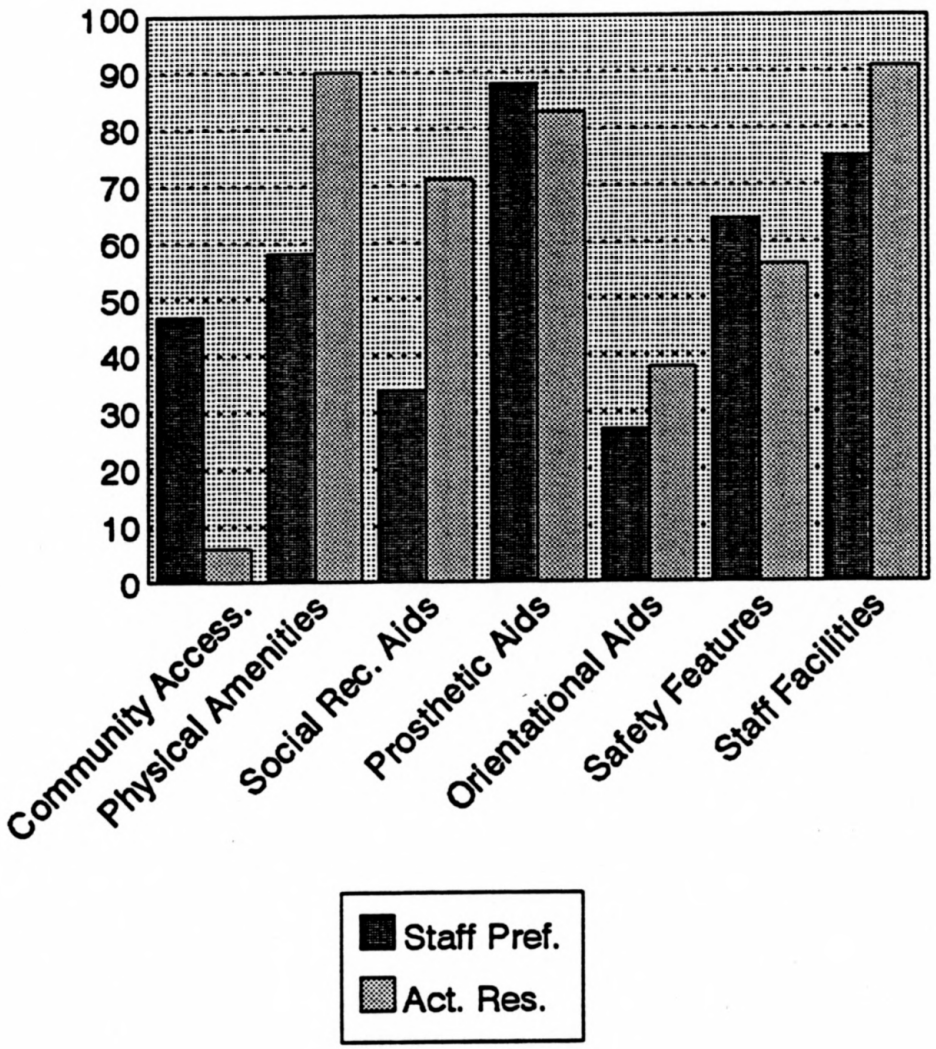


Figure 11. Policy and program resources for the facility and preferences of current staff.

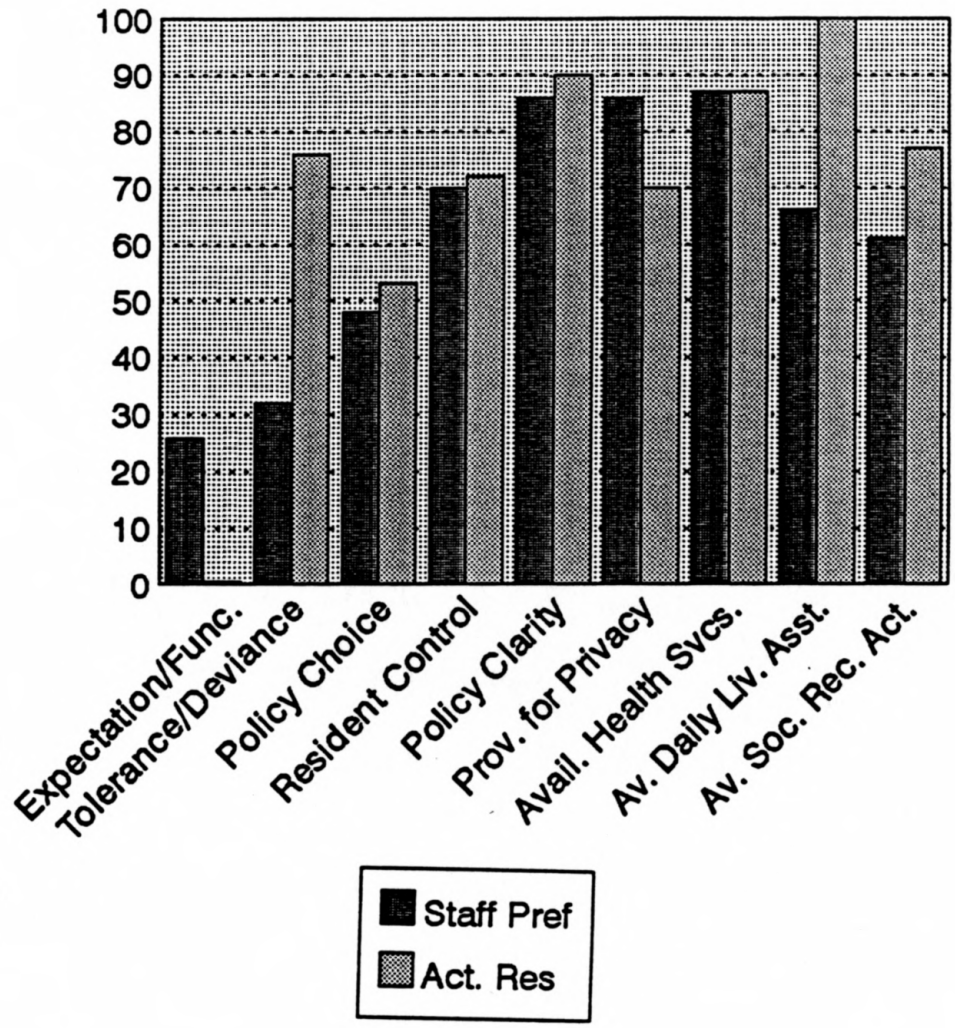
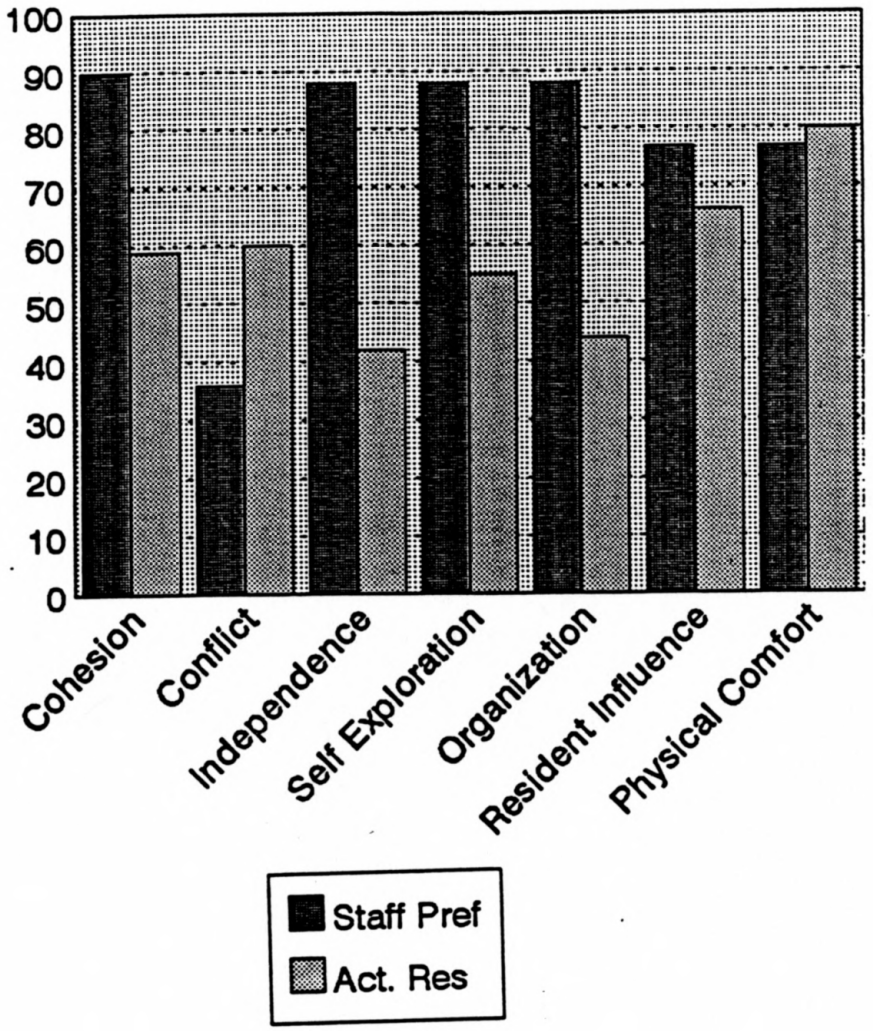


Figure 12. Social resources of the facility and preferences of current staff.



with the preference of the normative sample. As shown in Table 7, 'Community Accessibility', as preferred by staff, was 47%. The normative score was similar at 45%. The actual setting scored only a 6%.

The ratings of the normative sample ranked 'Safety Features' as most important (Table 7). 'Staff Facilities', 'Prosthetic Aids', and 'Physical Amenities' were next in importance followed by 'Orientational Aids', 'Social-Recreational Aids', and 'Community Accessibility'. Staff, however, valued 'Prosthetic Aids' as most important. Unanimous with the normative data were the rankings of 'Staff Facility', second: 'Physical Amenities' and 'Social Recreational Aids' ranked fourth and sixth, respectively. The least important feature, as reported by staff, was 'Orientational Aids'.

POLIF-1

The Ideal Form of the Policy and Program Information Form (POLIF-1) measures staff preferences about the policy and program provisions of the long-term care facility. Figure 11 indicates the percentage of items rated "very important" or "essential" and compares the actual policy and program resources of the facility with staff preferences.

Four dimensions showed moderate consensus concerning policies between the actual and preferred. Staff preferences for 'Policy Choice', 'Resident Control', 'Policy Clarity', and 'Available Health Services' were similar to what the facility actually provided. The most significant difference between staff preference of policies and the actual policies provided was indicated in the 'Tolerance for Deviance' dimension. The majority of staff felt the facility was too tolerant in accepting unruly behavior of residents. Specifically, behaviors such as destroying property, threatening others, and

drunkenness were viewed by staff as being intolerable. They also indicated a relative difference in the dimension of 'Availability of Daily Living Assistance'. Staff indicated that it was less important for them to provide residents with services such as religious advice, banking matters, shopping, and beauty aids. In addition, staff viewed 'Expectation for Functioning' significantly higher in importance than the facility. The facility placed no demands on residents for independent functioning, while staff score of 26% indicated a desire for some independence but not as much as the national average of 54%. The 'Availability of Social and Recreational Activities' also was considered by staff, somewhat less important than the actual programs provided.

The normative comparisons show a substantial difference among staff preferences for the researched facility and those for the normative sample. The average ratings of the normative data ranked Policy Choice as most important (Table 9). Provision for Privacy and Availability of Social Recreational Activities were next in importance followed by 'Policy Clarity', 'Resident Control', 'Expectation for Functioning', and 'Availability of Health Services'. The least important dimension of the normative sample was 'Tolerance for Deviance'.

Contrasting the normative results are the following rankings as reported by staff of the researched facility. The 'Availability of Health Services' was viewed as most important. 'Provision for Privacy' and 'Policy Clarity' were next in importance followed by 'Resident Control', 'Availability of Daily Living Assistance', 'Availability of Social Recreational Activities', 'Policy Choice', and 'Tolerance for Deviance'. The least important dimension as reported by staff was 'Expectation for Functioning'. The

discrepancies on the policy items, when comparing the staff preferences of the research facility with the normative data, are most likely more indicative of different viewpoints of the respondents. For example, staff expectations may vary between facilities because of the varying resident needs within each setting.

SCES-1

The Ideal Form of the Sheltered Care Environment Scale (SCES-1) measures staff preference about the facility's social environment. Figure 12 indicates the social resources of the research facility and preferences of current staff regarding what an ideal setting would be like. The dimensions measure staff response regarding how supportive staff members should be toward residents, how friendly residents should be toward each other, and how much residents should be able to express anger and be critical of the facility.

Two dimensions showed moderate consensus concerning the ideal social environment as viewed between the actual social resources and those preferred by staff. Staff preference for 'Resident Influence' and 'Physical Comfort' were similar to actual social resources of the facility. A majority of staff felt the residents should influence the rules, policies, and activities. They also indicated that comfort, privacy, and pleasant decor were important. The 'Physical Comfort' findings support the high score indicated in the PAF dimension of Physical Amenities. The 'Resident Influence' findings support the high score indicated in the POLIF dimension of 'Resident Control'.

Significant policy differences between what staff preferred and the actual environment were indicated in the remaining five dimensions. The facility fell well

below norms in 'Cohesion', 'Independence', 'Self Exploration', and 'Organization'. Staff felt residents should be more self-sufficient and self-directed. A majority also felt the residents should have a more definite daily routine. The staff's conflict expectation was significantly lower than the actual environment, indicating the degree to which they emphasize 'Cohesion' in an ideal setting.

The normative comparisons show a substantial difference among staff preferences at the researched facility and those of the normative sample. The average rating of the normative data ranked 'Physical Comfort' as most important (Table 10). 'Cohesion' and 'Organization' were next in importance followed by 'Independence', 'Self-Exploration', and 'Resident Influence'. The least important dimension of the normative sample was 'Conflict'. Contrasting the normative results are the following rankings as reported by staff of the researched facility. 'Cohesion' was viewed as most important. 'Independence', 'Self-Exploration', and 'Organization' were scored equal in importance, followed by 'Resident Influence' and 'Physical Comfort'. The least important social resource was 'Conflict'. As with the POLIF-1 results, the discrepancies on the social climate items, when comparing the staff preferences of the researched facility with the normative data, are most likely more indicative of different viewpoints of the respondent. Resident needs within each setting may vary, therefore, staff expectations may reflect varying responses.

CHAPTER V

SUMMARY AND CONCLUSIONS

Integrating a supportive living environment for aging residents and a supportive working environment for management and staff will continue to present a major challenge to long-term care facilities. Previous research has shown that the physical environments of long-term care facilities that enhance the well being of their residents and facilitate ease in caring for them are likely to lessen staff stress (Sloan & Matthew, 1991). Successful interrelationships between physical environment and facility management of long-term care facilities may assist in promoting appearance, productivity, and efficiency within the facility (Saunders, 1991) and facilitate quality care and cost containments. Thus, documenting through a case study the physical environment and facility management of a long-term care facility and potential relationships provide insights for the design and management of future facilities. This chapter summarizes the physical environment and facility management findings as documented by observations, interviews, and the data from the MEAP. In addition, the possible relationships between design and management suggested by the case study are discussed. Finally, the findings and the implications they have for future research and development of long-term care facilities are presented.

Summary of Findings

The first objective of the study was to describe the physical environment of a single long-term care facility. The relatively new, free standing facility incorporated assisted-living and nursing care units. While the semi-rural setting maintained a domestic appearance and ambience, the isolated location is believed to have significantly affected the accessibility of local resources. Because there was considerable walking distance between the facility and community based services (such as a bank and library), the accessibility to community resources was substantially deficient. Underlining the desire to maintain community contact, staff reported a need to increase the availability of resources to make shopping, services, and leisure opportunities outside the facility more accessible for residents. Their views support the findings indicated by the normative MEAP data, which revealed staff on the average preferred at least some accessible community-based resources. In addition, observations revealed the impeccably maintained outside grounds were used and primarily beneficial only to staff. Access to the outside was difficult for residents and was not encouraged. In addition, the outside did not provide protected walkways or activities such as gardening for residents.

Overall, the long-term care facility researched revealed a setting rich in physical features that contributed to convenience, attractiveness, and comfort of the facility. Many design features enhanced the quality of the setting and resulted in a facility that was well above the average regarding physical and architectural features as assessed by the MEAP. For example, noninstitutional finishes and furnishings such as carpeting, fabric upholstery, wallpaper, art work, draperies, and wood railings increased the domestic and

residential appearance. Comfortably furnished lounges and organized activities presented opportunities for residents to socially interact and participate in recreational events.

The management of the facility also indicated an above average preference for maintaining resources for staff. It was apparent that management valued their employees and believed the resources such as a staff lounge and individual office space might enhance staff morale and performance. The generally positive ratings of the facility studied are not surprising. The normative data were compiled in the early 1980s, and one could assume that significant improvements in the design of long-term care facilities would have occurred.

However, several aspects of the facility were problematic. The presence of orientational aids, which help in negotiating the facility environment, was below the average for long-term care facilities. Typically, such features as color coded or numbered corridors were not reported by staff or observed by the researcher as being important to this long-term care facility. Features that promoted safety were near average. Most staff in the particular setting were more concerned with interior-related safety features such as smoke alarms and nonslip flooring rather than exterior features. A monitored entrance and its visibility from an entrance lobby or a stationed employee were not important to staff or the facility administrator. In addition, the auditory stimulation of the facility presented problems. Most prevalent was the alarm system for the front entry doors and the resident call lights. An effort had been made to moderate noise by the use of carpeting, wall coverings, and window coverings. It was successful in moderating voice inflections, but not the agitating buzzing of alarms.

The primarily strong and above average indicators for physical and architectural resources lend support for the administrator's indication that he felt the design, arrangement, and finishes of the current facility worked well to promote ease in the staff's provision of care for residents, and that operational and administrative tasks were performed effectively as well. When comparing his new facility with others that were more established within the organization, the administrator indicated in his facility staff turnover was average and that he expected the rate to decrease as the facility became more established. The above data are consistent with the findings of Brennan and Moos (1990) who reported that facilities that supplement physical design features, such as hand rails in the halls and appropriately furnished lounges, may facilitate the staffs work and reduce turnover.

Typically, staff's view of the long-term care facility was that the physical and architectural features, with the exception of the availability of community resources, were more elaborate than they needed to be. While there is no study that investigates the outcomes of physical features that provide optimum comfort and support operational efficiency, one could speculate it would have little negative effect.

The second objective of the study was to describe the facility management of the facility through policies, practices, and procedures that affect the organizational and social climate of the facility. The facility revealed a strong organizational and social climate which seemed to enhance the overall total operation. Based on the quantitative assessment of policies and program procedures, the facility management of this particular setting was well above the average long-term care facility. Typically, most of the

quantitative findings lent support for the administrator's success as perceived by the researcher's observations. Residents of this facility exercised a significant amount of influence over policies and rules such as scheduled meetings to discuss complaints, help in planning menus, and selecting activities. Through the use of handbooks and orientation programs, the institution provided organized ways to define its policies. In addition, various services and activities, such as physical therapy, grooming, and exercise and art classes, were provided by the facility.

Research findings also indicated the facility provided more than the average degree of privacy for residents. However, these findings appear somewhat contradictory to the researcher's initial observations. A majority of the items assessed through the MEAP pertained to the availability of private bedrooms and bathrooms. Because the assisted-living units account for 63% of the private bedrooms and bathrooms and were included in the research, the overall findings are significantly more favorable than for skilled care. Data also revealed the facility had a lenient policy for behavioral requirements of residents. This specific facility placed no demands on residents with respect to independent functioning in daily activities and had significantly higher than average tolerance for deviant behavior. The long-term care facility was about average in the degree of control they exercise over residents. Residents were free to structure individual patterns of behavior, such as scheduling daily routines to fit their needs. For example, scheduled eating, bathing, and sleeping were encouraged by the facility, but the choice was ultimately left to the resident. Not surprisingly, the staff thought the facility

was too tolerant of deviant behaviors and did not do enough to support independent behavior. Both of these dimensions affected the work load of staff.

Perceptions of the social environment of the long-term care facility were reflected in responses by the staff and the administrator. It was not surprising to find the administrator viewed the setting more positively on more dimensions than staff. Persons with more authority and responsibility in a setting may tend to be more positive in their reports (Lemke & Moos, 1987). Overall, the long-term care facility revealed a setting relatively strong in agreement regarding social interaction among staff, management, and residents. Staff morale was observed as being primarily positive, further enhancing the social climate of the facility.

The staff of the long-term care facility reported lower than average cohesion and a slightly higher than average amount of conflict. The findings indicate the facility was lower regarding how involved and supportive staff members are with residents, how involved residents are with each other, and the extent to which residents express anger and criticism. For example, staff reported that residents sometimes would get impatient with staff and each other. While this was occasionally observed by the researcher, cohesion and conflict in the facility seemed to be modest and did not reflect negatively on the setting.

Personal growth of residents was perceived by staff to be somewhat lower than the national average. For example, the policy of the organization indicated that staff provided little encouragement for residents to be self sufficient in their personal lives or to exercise much responsibility and self-direction. The MEAP findings supported staff

perceptions that the facility favored a relaxed schedule and residents influenced the policy of the facility. Because of the substantial influence residents have over policies and rules, it would follow that staff may report the level of organization to be somewhat lower than average. It is important to note that increased organization might reflect more routine in work for staff and lack of flexibility for meeting unexpected resident needs. The facility, overall, was observed as having a relatively balanced order and predictability while also showing concern for resident input. Finally, staff indicated the long-term care facility provided comfort, privacy, pleasant decor, and sensory satisfaction.

Staff preferences for the ideal social environment again showed moderate consensus for most social resources. Not surprisingly, the resources that more directly affect the work load of staff were viewed as not sufficient. Low levels of cohesion, independence, self exploration, and organization indicate the need for more staff involvement regarding care for the residents. Thus, a response indicating a preference to increase the dimensions would be expected.

The final objective of the study was to explore possible additional relationships of the physical environment and facility management of the long-term care facility. The results of this study imply that the physical environment and management of the particular setting do interrelate. For example, the physical features assessed by the MEAP, suggested the facility allowed more than adequate space for staff to function so that their work effort would be efficient. Staff had personal space in which to conduct their work as well as opportunities to retreat from work pressures associated with continual resident contact and interaction with family members and other staff members. For example, staff

were provided with a lounge where they could relax and/or socialize with other staff members. Alternative work space, such as the conference room, was also available for staff members. Staff were then able to perform work tasks free from interruptions. In addition the provision for available work space, the organization believed that it is important to emphasize the amount of space available per resident as a prerequisite for obtaining resident satisfaction. Supporting the findings were the researcher's observation that the facility was physically, operationally and socially well organized. These physical and organizational features appeared to support staff work efforts and contributed to a more pleasant work environment. In addition, the physical amenities of the facility were well above the average long-term care facility and supported the staff's report for high physical comfort. The findings lend support for Sloan and Matthew's (1991) suggestion that the physical environments of long-term care facilities that enhance the well being of their residents may facilitate ease in caring for them. In addition, the findings support Cohen and Weisman's (1991) suggestion that job satisfaction for staff members can be enhanced through the provision of opportunities for temporary retreat from job pressures. Such designated places for staff retreat may foster staff members' positive self image, team spirit, and care-giving qualities.

The policies of the long-term care facility also indicated an interrelationship with the physical and social climate of the organization. Behaviors of residents and staff support this connection. For example, it is the policy of the facility to place no demands on residents with respect to independent functioning in daily activities and to be very tolerant of deviant behavior. Connecting policy with physical design and emphasizing

the lack of encouragement for resident autonomy is the facility's lack of orientational design features that provide and promote independent way finding. Available visual cues, which could help orient residents, were absent.

Policy and design decisions also affected social concerns of the facility's staff members. Staff reported the need to increase expectations for functioning for the residents and to discourage intolerant behavior, as well as provide more support for better staff cohesion. Staff also indicated the need for more organization and predictability of the facility, as well as more encouragement for residents to be self sufficient in their personal lives. The findings suggest that these changes could make staff's care-giving easier, and in turn, increase performance and morale. Hence, the findings of the study lend support for a design and management relationship reported by McLarney and Chaff (1991), that suggests a successful interrelationship between physical environment and facility management of a long-term care facility assists in promoting appearance and productivity within the facility. It stands to reason that if management of the long-term care facility addresses the issues staff have suggested, the changes may further influence job satisfaction and quality of care provided. Identifying differences in the perceptions of the organization's policy among staff members helps managers and staff work together efficiently. Clare, Carter, and Sanford (1989) support this approach by suggesting when management and staff experience shared goals and perceive their objectives in a like manner, the interaction can contribute to successful facility management of a long-term care facility.

Strengths and Weaknesses of the Case Study

The results of this study, as summarized above, suggest that within the facility there are relationships between supportive physical environment and effective facility management. Furthermore, the findings infer that the relationship may also influence staff attitudes and perceptions, which can directly affect job performance. We can only speculate that greater job satisfaction enhances job retention and ultimately, operational cost containments. While the administrator indicated his new facility,when compared to older settings within the organization, was average regarding staff turnover, he also expressed the expectation that job retention would increase once his staff base was stabilized. Thus, one could speculate that operational savings would result because continual recruitment, hiring, and training of new employees would diminish (Kasteler, et al., 1979, as cited in Brennan & Moos, 1990).

However, the results from the single long-term care facility do not allow generalizations. Research involving additional settings within the organization would be beneficial for owners to compare the design and management of the individual facilities within one organizational structure. Replication would also help researchers identify more potential connections between physical design and facility management. For example, facility management of this particular setting appeared to be strongly contingent on the administrator's informed and involved role. Although the MEAP lent some objective support for the perceived success of the administrator, additional research of other long-term care facilities would have been beneficial to the study. Further comparisons of similar settings could enlighten owners on issues related to efficient

facility management. It is unclear just how significant a role the physical environment played in the successful facility management of this long-term care facility. A less effective administrator in a similar environment or similar management in a less effective environment may lead to different results. Additional comparisons could help clarify and possibly validate the findings of the study.

Finally, the study informed owners of the facility about the following design and policy considerations in their existing and future facilities. First and foremost, community accessibility is an important issue in locating future facilities. Convenient proximity to appropriate local services can complement a facility's own activities and personnel or resident's resources (Cohen & Day, 1993). Accessible community resources may benefit the residents, staff, and organization by allowing more outside connection for stimulation and recreation for residents. For example, access to a public library or shopping center may increase residents social involvement, may enhance resident well being, and facilitate their care. Such resources may also provide staff with easy accessibility to services that enhance their daily activities.

A second issue is the facility's neglect of the opportunities associated with the outside environment as a source of stimulation for resident interaction and resident retreat. The existing facility could easily be enhanced by providing more outside opportunities for residents. This goal could be achieved by providing secured and sheltered walkways, gardens, and patios; then the facility would extend the indoor resources for even the most confused resident and maximize the use of the facility's vast outdoor space.

Third, orientational aids should be developed to help residents and staff navigate

within the facility. Cues and markers to better distinguish residents' rooms could aid them in orientation. For example, the small name plate on the residents' door should be enlarged and include a photograph or personal memento to aid residents and staff in identification. A variety of color schemes within the different corridors may also help cue residents as to their location. Cohen and Day (1993) indicate that color cuing for some individuals is successful in way finding but without name signs and personal items outside the doors, most residents would never find their rooms.

Finally, management could consider developing more ways to increase independent behavior for residents and to encourage and support their functional ability. For example, residents should be encouraged to perform the activities of daily living of which they are still capable of performing. Many residents of the facility were able to dress themselves; however, because of the additional time it took, staff assumed this role. It may be all too easy to lose patience and quickly perform these tasks for impaired persons rather than allow them to care for themselves (Cohen & Weisman, 1991). Dependency of residents in long-term care facilities is often learned because staff assistance does not encourage the maintenance of functional abilities.

The owners and designers of the facility have made great strides of creating qualities necessary for a supportive residential environment for residents, as well as an efficient work environment for staff. The administrator facilitates the integration of these qualities by his compassionate, informed, and involved role. The above design and policy considerations could further enhance and support the staff of the facility. By maximizing resident autonomy, the time and energies of care-giving are freed for other

tasks (Cohen & Weisman, 1991).

In closing, maximizing resident autonomy can be viewed as an important goal for owners and administrators of long-term care facilities. The previous design and policy considerations brought to light issues regarding the importance of community resources, negotiable environments, and outdoor environments. More attention to these issues by designers and owners can encourage independent behavior of residents and help sustain their autonomy. Such settings may need to turn some of their focus from caregiving and supervision to promoting ways that will preserve the dignity and self esteem of residents and facilitate better care.

Staff from the facility highlighted the features described above as being inadequate and in need of additional provisions. It is important for owners and administrators to acknowledge employee participation in decision making by providing positive results for such efforts. If physical and/or managerial changes are not possible, the intercommunication regarding such issues, results in increased self esteem, self worth, and a sense of achievement by employees (Carter, Kooperman & Clare, 1988). Staff, like the residents they care for, need to feel a sense of autonomy within the organization. One of the first steps in supporting a working environment for staff and a living environment for aging residents is to facilitate autonomy for both through appropriate design and management decisions.

Recommendations for Future Research

The results of this study suggest several issues for further research. First, the limitations imposed by the case study of a single facility mean that findings need to be

replicated and issues explored more fully using other settings. Second, the study indirectly brought to light the significant role the administrator performed in a setting with a relatively supportive and noninstitutional physical environment. Future research should focus more directly on the administrative role in facilitating supportive living environments for aging residents and supportive working environments for management and staff. The research design of the present study allowed for a more indirect and subjective measure of the administrator in his role as facility manager. Performance was measured by informed observations, interviews, and by perceptions of staff. Future research should incorporate objective techniques for assessing and defining the effectiveness of the administrator and his or her knowledge of the potentially supportive characteristics of the physical environment. Suggestions would include the previous methods for assessing behavior as well as more systematic observations and surveys. A more quantified approach can provide data that may be systematically evaluated and used to compare performance of other administrators in relationships to the milieu of the long-term care setting, define their strengths and weaknesses, and identify possible outcomes.

Finally, the administrator's performance as a facility manager and the performance of staff in their caregiving roles must be studied further to identify relationships with each other as well as within the physical environment. While this study implied there were successful interrelationships between design, management, staff, and residents of the facility, additional research should identify key facility management issues that long-term care facilities must address.

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APPENDIX A

PAF

MULTIPHASIC ENVIRONMENTAL ASSESSMENT PROCEDURE

PART I

PHYSICAL AND ARCHITECTURAL FEATURES CHECKLIST (PAF)

This form is one part of the Multiphasic Environmental Assessment Procedure (MEAP) for evaluating the physical and social environments of sheltered care settings. It should be used with the MEAP Handbook for Users, which provides an overview of the five parts of the MEAP, instructions for organizing data collection, and item definitions. The scoring key and descriptions of the dimensions assessed by this form and by other portions of the MEAP are given in the Hand Scoring Booklet and the MEAP Manual.

The following questions relate to physical characteristics inside and outside the facility and to the neighborhood context in which the facility is located. Please check the spaces and fill in the information requested about the facility. Answer the questions as fully as possible, making additional comments as necessary.

Please fill in the information below

Date_____

Name of facility _____

Type of facility (e.g., nursing home, domiciliary, residential care facility, senior citizens apartments)

_____

How long has this facility been in operation? _____

Sponsoring agency or name of corporation _____

Your name _____

Social Ecology Laboratory, Veterans Administration and Stanford University Medical Center, Palo Alto, California 94304

This section relates to the exterior of the building and its neighborhood. Fill in the blanks or check "yes" or "no" where appropriate. There is space for additional comments at the end of each section.

SECTION I NEIGHBORHOOD CONTEXT

1. Is the neighborhood primarily:

   1 ☐ urban

   2 ☐ suburban

   3 ☐ rural 1

   1a. If rural, how far is it to the nearest town? . . . . . _____ 2,3

2. What type of neighborhood is the facility in?

   1 ☐ one family or low-rise apartment residential

   2 ☐ high-rise apartment residential

   3 ☐ business

   4 ☐ both business and residential

   5 ☐ other (please specify) _____ 4

3. Is the facility all in one building? . . . . . 1 ☐ Yes 2 ☐ No 5

   3a. If so, how many stories does the building have? . . . . _____ 6,7

   3b. How old is the building? . . . . . _____ 8,9

4. If the facility has more than one building:

   4a. How many stories does the lowest building have? . . . . _____ 10,11

   4b. How many stories does the tallest building have? . . . . _____ 12,13

   4c. How old is the oldest of these buildings? . . . . . _____ 14,15

5. Are the following community resources located within easy walking distance of the facility (1/4 mile)?

		1	2	
5a.	Grocery store	☐ Yes	☐ No	16
5b.	Drugstore	☐ Yes	☐ No	
5c.	Senior citizens center	☐ Yes	☐ No	
5d.	Movie theatre	☐ Yes	☐ No	
5e.	Church or synagogue	☐ Yes	☐ No	20
5f.	Public library	☐ Yes	☐ No	
5g.	Bank	☐ Yes	☐ No	
5h.	Hospital	☐ Yes	☐ No	
5i.	Doctor's office	☐ Yes	☐ No	
5j.	Dentist's office	☐ Yes	☐ No	25
5k.	Post office	☐ Yes	☐ No	
5l.	Park	☐ Yes	☐ No	

6. Does the city or town within which this facility is located have a public transportation system? . . . . . ☐ Yes ☐ No

7. Is there a public transportation stop within easy walking distance (1/4 mile)? . . . . . ☐ Yes ☐ No

   7a. If so, does it have benches? . . . . . ☐ Yes ☐ No

8. Are there lights in the surrounding streets? . . . . . ☐ Yes ☐ No 31

Comments on the Neighborhood Context:

Items are considered applicable to all facilities except where not applicable (N/A) is given as a possible response. Refer to the Handbook for Users for the rationale and handling of specific items.

SECTION II EXTERIOR OF BUILDING

			1	2	
1.	Is the main entrance sheltered from sun and rain?		☐ Yes	☐ No	32
2.	Is the outside building area well lighted?		☐ Yes	☐ No	
3.	Are the outside walk and entrance visible:				
3a.	from seating spaces in the lobby or a ground floor social space?		☐ Yes	☐ No	
3b.	from the office or station of an employee?		☐ Yes	☐ No	35
4.	Is there outside seating in the front of the building? .		☐ Yes	☐ No	
4a.	Is it visible from the entrance lobby or a ground floor social space?	0 ☐ N/A	☐ Yes	☐ No	
4b.	Is it visible from the office or station of an employee?	☐ N/A	☐ Yes	☐ No	
4c.	Is it protected from the weather?		☐ Yes	☐ No	
4d.	Does it provide a view of pedestrians and other activity?		☐ Yes	☐ No	40
5.	Is there a patio or open courtyard?		☐ Yes	☐ No	
6.	If there is an outside area:				
6a.	Are tables available?		☐ Yes	☐ No	
6b.	Are umbrella tables available?		☐ Yes	☐ No	
6c.	Is the outdoor furniture in good condition?		☐ Yes	☐ No	
6d.	Is there a covered area (rainproof)?		☐ Yes	☐ No	45
6e.	Is there an area with a sun screen (not necessarily rainproof) or protection from the sun (e.g., trees)?		☐ Yes	☐ No	
6f.	Is there a barbeque?		☐ Yes	☐ No	
6g.	Is there a shuffleboard game area?		☐ Yes	☐ No	48

		1	2	
7.	Is there a garden area for resident use?	☐ Yes	☐ No	49
8.	Is there a lawn?	☐ Yes	☐ No	50
9.	Is there parking reserved for handicapped?	☐ Yes	☐ No	
10.	Is there parking for staff?	☐ Yes	☐ No	
11.	Is there parking for visitors?	☐ Yes	☐ No	53
12.	What is the acreage of the grounds?	_____		54-57

Comments on the Exterior of the Building:

71-80 | | P | F | | | | | | | 1 |

SECTION III INTERIOR OF BUILDING

These questions concern specific features that may be present in the facility. Check "yes" or "no" for each feature. If the facility has some special features that are not covered, please explain in the space reserved for comments at the end of each part.

PART I LOBBY AND ENTRANCE AREA

		1	2	
1.	Can one enter the building from the street without having to use any stairs?	☐ Yes	☐ No	1
2.	Is the entry from outside limited to one unlocked door?	☐ Yes	☐ No	
3.	Is there a bell or call system outside?	☐ Yes	☐ No	
4.	Are written instructions posted outside that explain how to get in if the front door is locked?	☐ Yes	☐ No	
5.	Does the front door open automatically?	☐ Yes	☐ No	5
6.	Does the front door swing closed by itself?	☐ Yes	☐ No	
7.	Is the front door wide enough for a wheelchair?	☐ Yes	☐ No	
8.	Is there an individual who usually monitors access to the building?	☐ Yes	☐ No	
9.	Is there a reception area or reception desk?	☐ Yes	☐ No	
10.	Is there a place for visitors to sign in?	☐ Yes	☐ No	10
11.	Is there a lobby?	☐ Yes	☐ No	
	11a. If so, approximately what size is it? . . . . . _____ sq.ft.			12-15
12.	Is there seating in the lobby?	☐ Yes	☐ No	16
13.	Is there a lounge near the entrance (other than the lobby)?	☐ Yes	☐ No	
	13a. If so, is this lounge furnished for resting or casual conversation?	☐ Yes	☐ No	
14.	Can one see into the lobby or entrance area from a lounge or other ground floor social space? . . .	☐ Yes	☐ No	
15.	Is there at least one large face clock in the lobby or entrance area?	☐ Yes	☐ No	20

Comments on the Interior of the Building:

PART II HALL AND STAIRWAY AREAS

1. How wide are the hallways (in feet)? . . . . . _____ 21

2. Are the hallways crowded or are there obstructions (e.g., wheelchairs, meal carts, cleaning equipment)? . . ☐ 1 Yes ☐ 2 No

3. Are there handrails in the halls? . . . . . ☐ Yes ☐ No

4. Are the halls decorated (e.g., pictures or plants)? . . . ☐ Yes ☐ No

5. Are there drinking fountains? . . . . . ☐ Yes ☐ No 25

   5a. If so, how many per floor? . . . . . _____

   5b. Are they accessible to wheelchair residents? . . . . ☐ Yes ☐ No

6. Are there public telephones? . . . . . ☐ Yes ☐ No

   6a. If so, how many per floor? . . . . . _____

   6b. Is there a writing surface by the telephone? . . . . ☐ Yes ☐ No 30

   6c. Is at least one telephone accessible to wheelchair residents? . . . . . ☐ Yes ☐ No

   6d. Does at least one telephone have a loudness control in the receiver for people who are hard of hearing? ☐ Yes ☐ No

7. Are there smoke detection devices in the halls? . . . . . ☐ Yes ☐ No

8. Does a resident have to climb any steps to have access to all areas of the building intended for resident use? . ☐ Yes ☐ No

9. Are the stairs well lighted? . . . . . ☐ 0 N/A ☐ Yes ☐ No 35

10. Are there nonskid surfaces on stairs and ramps? . . ☐ N/A ☐ Yes ☐ No

11. Is each floor or corridor color coded or numbered? . . . ☐ Yes ☐ No

12. Are the residents' names on or next to their doors? . . . ☐ Yes ☐ No

13. Is it relatively easy for new residents to find their way around the building, i.e., is the building well marked or small and uncomplicated? . . . . . ☐ Yes ☐ No 39

Comments on the Hall and Stairway Areas:

Parts III, IV, and V cover the communal rooms in the facility. Three categories are used: lounge or community room areas, recreational or special activity areas, and dining room areas. Each room should be listed under only one category according to its main function.

PART III LOUNGE AND COMMUNITY ROOM AREAS

1. Are there any lounge or community room areas? . . . . . ☐ 1 Yes ☐ 2 No 40

   1a. If so, how many? . . . . . _____ 41-43

   1b. What size is the smallest lounge? . . . . . _____ sq.ft. 44-47

   1c. What size is the largest lounge? . . . . . _____ sq.ft. 48-51

   1d. How large are the lounges all together? . . . . _____ sq.ft. 52-55

2. Are any of these rooms near an entrance or traveled hallway? . . . . . ☐ Yes ☐ No 56

3. Are there writing desks or tables? . . . . . ☐ Yes ☐ No

4. Are there small tables for several people to sit and talk or play games? . . . . . ☐ Yes ☐ No

5. Is reading material available on tables or shelves? . . . ☐ Yes ☐ No

6. Are there any table lamps? . . . . . ☐ Yes ☐ No 60

7. Is the furniture spaced wide enough for wheelchairs? . . ☐ Yes ☐ No

8. Is there a quiet lounge with no television? . . . . . ☐ Yes ☐ No 62

Comments on the Lounge and Community Room Areas:

71-80 | | P | F | | | | | | | 2 |

PART IV RECREATION OR SPECIAL ACTIVITY AREAS

1. Are there any areas primarily designated for recreation or special activities? (Do not record these areas under any other category.) . . . . . ☐ 1 Yes ☐ 2 No 1

   1a. If so, how many? . . . . . _____ 2-4

   1b. What size is the smallest such area? . . . . . _____sq.ft. 5-8

   1c. What size is the largest such area? . . . . . _____sq.ft. 9-12

   1d. How large are these areas all together? . . . . _____sq.ft. 13-16

2. Is there a library from which books can be borrowed? . . ☐ Yes ☐ No 17

3. Is there a music or listening room? . . . . . ☐ Yes ☐ No

   What types of recreational or special activity materials are available?

4. Pool or billiard table? . . . . . ☐ Yes ☐ No

5. Ping pong table? . . . . . ☐ Yes ☐ No 20

6. Piano or organ? . . . . . ☐ Yes ☐ No

7. One or more television sets? . . . . . ☐ Yes ☐ No

8. One or more phonographs? . . . . . ☐ Yes ☐ No

9. One or more radios? . . . . . ☐ Yes ☐ No

10. One or more sewing machines? . . . . . ☐ Yes ☐ No 25

Comments on Recreation or Special Activity Areas:

PART V DINING ROOM AREAS

1.	Are there any dining areas?	☐ 1 Yes ☐ 2 No	26
1a.	If so, how many? (Do not record these areas under any other category.)	_____	27-29
1b.	What size is the smallest dining room?	_____ sq.ft.	30-33
1c.	What size is the largest dining room?	_____ sq.ft.	34-37
1d.	How large are these areas all together?	_____ sq.ft.	38-41
2.	Are there small tables which seat fewer than six?	☐ Yes ☐ No	42
3.	Are there large tables which seat more than six?	☐ Yes ☐ No	
4.	Is aisle space between tables at least 60"?	☐ Yes ☐ No	

Comments on Dining Room Areas:

PART VI STAFF AND OFFICE AREAS

1.	Are there offices for the administrative staff?	☐ Yes ☐ No	45
2.	Is there office space for the secretarial and clerical staff?	☐ Yes ☐ No	
3.	Are there offices for social service and counseling staff?	☐ Yes ☐ No	
4.	Is there additional office space available for other staff (e.g., activity director, volunteers, part-time staff)?	☐ Yes ☐ No	
5.	Are the offices free of distractions from adjacent activities?	☐ Yes ☐ No	
6.	Is there a separate room for handling mail, copying, or printing?	☐ Yes ☐ No	50
7.	Is there a conference room?	☐ Yes ☐ No	
8.	Is there a staff lounge?	☐ Yes ☐ No	
8a.	If so, does it have tables?	☐ Yes ☐ No	
8b.	Does it have comfortable chairs?	☐ Yes ☐ No	54

8c. What size is it? . . . . . _____sq.ft. 55-58

9. How many staff members are there all together (in full-time equivalents--1 FTE = 40 hours/week)? . . . . . _____ 59-61

Comments on Staff and Office Areas:

71-80 | | P | F | | | | | | 3 |

PART VII GENERAL FACILITIES

1.	Is a map showing community resources available in a convenient public location?	☐ Yes (1) ☐ No (2)	1
2.	Is there a bulletin board in a public location?	☐ Yes ☐ No	
3.	Is there a posted list of the staff?	☐ Yes ☐ No	
	3a. If so, does it include pictures?	☐ Yes ☐ No	
4.	Is there a posted list of residents?	☐ Yes ☐ No	5
	4a. If so, does it include pictures?	☐ Yes ☐ No	
5.	Is there a sound system or public address system?	☐ Yes ☐ No	
6.	Is there an air-conditioning system?	☐ Yes ☐ No	
7.	Is there a chapel or meditation room?	☐ Yes ☐ No	
8.	Is there a gift shop, commissary, or store?	☐ Yes ☐ No	10
9.	Is there a kitchen area in which a resident or visitor can make a cup of coffee, heat some soup, or the like? .	☐ Yes ☐ No	
10.	Is there a snack bar?	☐ Yes ☐ No	
11.	Are there vending machines for candy or soft drinks? . .	☐ Yes ☐ No	
	11a. If so, are they used by residents?	☐ Yes ☐ No	
12.	Is there a laundry area for residents' use?	☐ Yes ☐ No	15

Comments on General Facilities:

PART VIII BATHROOM AND TOILET AREAS

	All or almost all (1)	Some (2)	Very few or none (3)	
1. Are there raised thresholds at the entrances? . . .	☐	☐	☐	16
2. Do the bathroom doors open out?	☐	☐	☐	
3. Are there handrails or safety bars?	☐	☐	☐	
4. Are there lift bars next to the toilet?	☐	☐	☐	
5. Are the towel racks and dispensers higher than 40" from the floor?	☐	☐	☐	20
6. Are there mirrors in the bathrooms?	☐	☐	☐	
7. Are there non-slip surfaces in all areas subject to wetness?	☐	☐	☐	
8. Are there call buttons in the bathrooms?	☐	☐	☐	
9. Is there turning radius for a wheelchair (5 ft. by 5 ft.)?	☐	☐	☐	

10. What size is the smallest bathroom? . . . . . _____ sq.ft. 25-27

11. What size is the largest bathroom? . . . . . _____ sq.ft. 28-30

12. What is the largest number of residents who share one bathroom area? . . . . . _____ 31, 32

13. Does each resident have access to both a bathtub and a shower? . . . . . ☐ 1 Yes ☐ 2 No 33

13a. How many bathtubs are there? . . . . . _____ 34-36

13b. How many showers are there? . . . . . _____ 37-39

13c. Is there a flexible shower? . . . . . ☐ Yes ☐ No 40

13d. Is there a seat included in the shower? . . . . . ☐ Yes ☐ No 41

13e. Is a wheelchair-entered shower available? . . . . . ☐ Yes ☐ No 42

Comments on the Bathroom and Toilet Areas:

71-80 | | P | F | | | | | | | 4 |

PART IX INDIVIDUAL ROOMS OR APARTMENTS

1. How many rooms and/or apartments are there all together? . _____ 1-3

2. How many residents are living here at the present time? . . _____ 4-6

3. What is the largest number of residents who share one room or apartment? . . . . . _____ 7,8

Are the following features present in individual rooms or apartments?

	All or almost all (1)	Some (2)	Very few or none (3)	
4. Is there wall space available where residents can hang pictures?	☐	☐	☐	9
5. Are there wall lights (or table lamps) that give adequate light for reading?	☐	☐	☐	10
6. Is there a mirror?	☐	☐	☐	
7. Is there one window sill that is wide enough for flowers?	☐	☐	☐	
8. Are the floors a light color?	☐	☐	☐	
9. Are the walls a light color?	☐	☐	☐	
10. Are there individual heating controls?	☐	☐	☐	15
11. Are there individual air-conditioning controls? .	☐	☐	☐	
12. Is there a telephone or a telephone connection? .	☐	☐	☐	
13. Is there room for wheelchair use?	☐	☐	☐	
14. Are there handrails?	☐	☐	☐	
15. Are there smoke detection devices?	☐	☐	☐	20
16. Is there a call button or telephone connection in every room (e.g., each bedroom of 2-bedroom apartments)?	☐	☐	☐	
	N/A (0)			
17. Do the apartments have their own kitchen or kitchenette?	☐	☐	☐	22

18. What size is the smallest room or apartment? . . . . _____sq.ft. 23-26

19. What size is the largest room or apartment? . . . . _____sq.ft. 27-30

20. What size is the smallest per person closet area? . _____sq.ft. 31-32

21. What size is the largest per person closet area? . . _____sq.ft. 33-34

Comments on Individual Rooms or Apartments

71-80

	P	F							5

APPENDIX B

POLIF

MULTIPHASIC ENVIRONMENTAL ASSESSMENT PROCEDURE

PART II

POLICY AND PROGRAM INFORMATION FORM (POLIF)

This form is one part of the Multiphasic Environmental Assessment Procedure (MEAP) for evaluating the physical and social environments of sheltered care settings. It should be used with the MEAP Handbook for Users, which provides an overview of the five parts of the MEAP, instructions for organizing data collection, and item definitions. The scoring key and descriptions of the dimensions assessed by this form and by other portions of the MEAP are given in the Hand Scoring Booklet and the MEAP Manual.

The following questions ask about (1) the financial and entrance arrangements, (2) the types of rooms or apartments in the facility, (3) the way in which the facility is organized, and (4) the services provided for residents. Please check the boxes and fill in the information requested. The word "residents" is used throughout the form; it refers to those who live in the facility (with the exception of live-in staff). Please answer the questions as fully as possible, making additional comments as necessary.

Please fill in the information below

Date _____

Name of facility _____

Type of facility (e.g., nursing home, domiciliary, residential care facility, senior citizens apartments)

_____

How long has this facility been in operation? _____

Sponsoring agency or name of corporation _____

Your name _____

Social Ecology Laboratory, Veterans Administration and Stanford University Medical Center, Palo Alto, California 94304

SECTION I FINANCIAL AND ENTRANCE ARRANGEMENTS

1. Is there an initial entrance fee? . . . . . ☐ 1 Yes ☐ 2 No 1

1a. If so, what is the minimum fee?

☐ 1 less than $1,000

☐ 2 $1,000 to $4,999

☐ 3 $5,000 to $9,999

☐ 4 $10,000 or more 2

2. What is the minimum monthly rate for residents who are not receiving federal or state aid?

☐ 1 less than $200

☐ 2 $200 to $399

☐ 3 $400 to $599

☐ 4 $600 to $799

☐ 5 $800 or more 3

2a. What services are covered by this monthly rate?

☐ 4 room

☐ 5 board

☐ 6 cleaning or maid service

☐ 7 personal care

☐ 8 nursing care

3. Are rates set on a sliding scale based on the resident's income? . . . . . ☐ 1 Yes ☐ 2 No 9

4. Must a prospective resident be ambulatory? . . . . . ☐ Yes ☐ No 10

5. Is there a minimum age requirement? . . . . . ☐ Yes ☐ No

5a. If so, what is it? . . . . . _____ 12, 13

6. Is there a waiting list for this facility? . . . . . ☐ Yes ☐ No 14

6a. If so, about how many people are on it? . . . . . _____ 15-17

7. What is the total capacity of the facility, i.e., how many residents can live here all together? . . . . . _____ 18-20

8. How many residents are living in the facility at the present time? . . . . . _____ 21-23

SECTION II TYPES OF ROOMS AND FEATURES AVAILABLE

1. IF THIS FACILITY IS DIVIDED INTO ROOMS OR DORMITORIES, please answer the following questions:

1a.	What is the total number of rooms for residents? . .	24-26
1b.	How many private rooms are there?	
1c.	How many rooms are there with two residents?	
1d.	How many rooms are there with three residents? . . .	33-35
1e.	How many rooms are there with four or more residents?	
1f.	What is the largest number of residents who share one room or dormitory unit?.	
1g.	How many private bathrooms are there?	42-44
1h.	How many bathrooms are shared by two residents? . .	
1i.	How many bathrooms are shared by three or more residents?	
1j.	What is the largest number of residents who share one bathroom area?	51-53

2. IF THIS FACILITY IS DIVIDED INTO APARTMENTS:

2a.	How many apartments are there for residents?	
2b.	How many studio apartments are there?	
2c.	How many 1-bedroom apartments are there?	60-62
2d.	How many 2-bedroom apartments are there?	

3. FOR ALL FACILITIES:

3a.	Are there furnished rooms or apartments?	☐ 1 Yes ☐ 2 No	66
3b.	Do residents have their own individual mailboxes?	☐ Yes ☐ No	
3c.	Is there a dresser for each person?	☐ Yes ☐ No	
3d.	Are there locks on all bathroom doors?	☐ Yes ☐ No	69

71-80 | | P | L | | | | | | | 1 |

SECTION III ORGANIZATIONAL POLICIES

PART I GENERAL INFORMATION

1. Which of the following best describes the ownership and management of the facility?

   1☐ Individual or partnership

   2☐ Nonprofit organization

   3☐ Government or public

   4☐ Large corporation

   5☐ Small corporation

   6☐ Management company

   7☐ Other (please specify) _____ 1

2. Does this facility have a Board of Directors? . . . . . 1☐ Yes 2☐ No 2

   2a. If so, how many members are on the Board? . . . . . _____ 3-4

   2b. How often does the Board meet?

   1☐ once a month or more

   2☐ quarterly or bi-monthly

   3☐ once or twice a year or less 5

3. If there is a Board of Directors, does it have a say in any of the approaches used and/or the activities provided in the facility? . . . . . ☐ Yes ☐ No 6

4. Do some of the staff, other than the administrator, regularly attend Board meetings? . . . . . ☐ Yes ☐ No

5. Is there a handbook for residents (e.g., rules, medical procedures, etc.)? . . . . . ☐ Yes ☐ No

6. Is there a handbook for staff (e.g., policies, operating procedures, treatment approaches)? . . . . . ☐ Yes ☐ No

7. Does the facility have an orientation program for new residents? . . . . . ☐ Yes ☐ No 10

8. Is there an orientation program for new staff? . . . . . ☐ Yes ☐ No 11

9. Are there formal staff meetings? . . . . . ☐ 1 Yes ☐ 2 No 12

9a. If so, how often?

1☐ once a week or more

2☐ once or twice a month

3☐ less than once a month

4☐ only when needed 13

10. Are there volunteers who help out in the facility? . . . ☐ Yes ☐ No

10a. If so, is there an orientation program for volunteers? . . . . . ☐ 0 N/A ☐ Yes ☐ No 15

PART II RULES RELATED TO PERSONAL POSSESSIONS AND BEHAVIORS

This section includes questions about the rules and expectations for residents. Check the boxes that best describe the policies and procedures in this facility. The following categories are used for Part II.

1. Encouraged - This kind of behavior or activity is encouraged here.
2. Allowed - This kind of behavior is expected; no special attempt is made to change it.
3. Discouraged - An attempt is made to discourage or to try to stop this behavior.
4. Intolerable - A person who persisted in this type of behavior would probably have to move out.

	Encouraged	Allowed	Discouraged	Intolerable	
	1	2	3	4	
1. Drinking liquor in one's room	☐	☐	☐	☐	16
2. Having one's own furniture in the room	☐	☐	☐	☐	
3. Moving furniture around the room	☐	☐	☐	☐	
4. Keeping a fish or bird in the room	☐	☐	☐	☐	
5. Keeping a hot plate or coffee maker in the room .	☐	☐	☐	☐	20
6. Doing some laundry in the bathroom, e.g., washing socks or underwear	☐	☐	☐	☐	
7. Drinking a glass of wine or beer at meals	☐	☐	☐	☐	
8. Skipping breakfast to sleep late	☐	☐	☐	☐	
9. Closing the door to one's own room	☐	☐	☐	☐	
10. Locking the door to one's own room	☐	☐	☐	☐	25

For Parts III and IV, please use the following categories to describe the facility's policies with respect to these behaviors and activities:

1. Allowed - This kind of behavior is expected; no special attempt is made to change it.

2. Tolerated - This kind of behavior is expected, but an effort is made to encourage the individual to function better or more appropriately.

3. Discouraged - An attempt is made to discourage or to try to stop this behavior.

4. Intolerable - A person who persisted in this type of behavior would probably have to move out.

PART III EXPECTATIONS RELATING TO LEVEL OF FUNCTIONAL ABILITY

	Allowed	Tolerated	Discouraged	Intolerable	
	1	2	3	4	
1. Inability to make one's own bed	☐	☐	☐	☐	26
2. Inability to clean one's own room	☐	☐	☐	☐	
3. Inability to feed oneself	☐	☐	☐	☐	
4. Inability to bathe or clean oneself	☐	☐	☐	☐	
5. Inability to dress oneself	☐	☐	☐	☐	30
6. Incontinence (of urine or feces)	☐	☐	☐	☐	
7. Confusion or disorientation.	☐	☐	☐	☐	
8. Depression, i.e., frequent crying, sadness	☐	☐	☐	☐	33

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SECTION IV SERVICES AND ACTIVITIES AVAILABLE

PART I SERVICES

Please indicate which of the following services are provided by this facility and the approximate number of residents who use them.

Service	1	2	Approximate number of residents who use this service at least once in a TYPICAL WEEK	
1. Regularly scheduled doctor's hours	☐ Yes	☐ No	_____	1-3
2. Doctor-on-call	☐ Yes	☐ No	_____	
3. Regularly scheduled nurse's hours	☐ Yes	☐ No	_____	
4. Assistance in using prescribed medications	☐ Yes	☐ No	_____	10-12
5. On-site medical clinic	☐ Yes	☐ No	_____	
6. Physical therapy	☐ Yes	☐ No	_____	
7. Occupational therapy	☐ Yes	☐ No	_____	19-21
8. Psychotherapy or personal counseling . . .	☐ Yes	☐ No	_____	
9. Religious advice or counseling	☐ Yes	☐ No	_____	
10. Legal advice or counseling	☐ Yes	☐ No	_____	28-30
11. Assistance with banking or other financial matters	☐ Yes	☐ No	_____	
12. Assistance with housekeeping or cleaning	☐ Yes	☐ No	_____	
13. Assistance with preparing meals	☐ Yes	☐ No	_____	37-39
14. Assistance with personal care or grooming .	☐ Yes	☐ No	_____	
15. Barber or beauty service	☐ Yes	☐ No	_____	
16. Assistance with laundry or linen service .	☐ Yes	☐ No	_____	46-48
17. Assistance with shopping	☐ Yes	☐ No	_____	
18. Providing transportation (e.g., minibus or pickup car)	☐ Yes	☐ No	_____	
19. Handling spending money for residents . . .	☐ Yes	☐ No	_____	55-57

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PART II ADDITIONAL SERVICES AND PROCEDURES

1. Is breakfast served each day? . . . . . ☐ 1 Yes ☐ 2 No ☐ 3 M-F only 1

   1a. What hours is breakfast served? . . . . . _____ 2

   1b. How many residents use this service on a typical day? . . . . . _____ 3-4

2. Is lunch served each day? . . . . . ☐ Yes ☐ No ☐ M-F only 5

   2a. What hours is lunch served? . . . . . _____ 6

   2b. How many residents use this service on a typical day? . . . . . _____ 7-8

3. Is dinner served each day? . . . . . ☐ Yes ☐ No ☐ M-F only 9

   3a. What hours is dinner served? . . . . . _____ 10

   3b. How many residents use this service on a typical day? . . . . . _____ 11-12

4. Are snacks served in the afternoon or evening? . . . . ☐ 1 Yes ☐ 2 No

   4a. How many residents use this service on a typical day? . . . . . _____ 14-15

5. Can residents choose to sit wherever they want at meals? . . . . . ☐ Yes ☐ No

6. Does a staff member take attendance or count residents at mealtimes? . . . . . ☐ Yes ☐ No

7. Is there a fairly set time at which residents are awakened in the morning? . . . . . ☐ Yes ☐ No 18

   7a. If so, what time?

   1☐ before 7:00

   2☐ between 7:00 and 8:00

   3☐ between 8:00 and 9:00

   4☐ 9:00 or later 19

8. Are there certain times during which residents are expected to take baths or showers? . . . . . ☐ Yes ☐ No 20

9. Is there a fairly set time at which residents are expected to go to bed (lights out) at night? . . . . . ☐ 1 Yes ☐ 2 No 21

9a. If so, what time?

☐ 1 before 8:00

☐ 2 between 8:00 and 9:00

☐ 3 between 9:00 and 10:00

☐ 4 10:00 or later 22

10. Is there a "curfew," i.e., a time by which all residents must be in the facility in the evening? . . . . . ☐ Yes ☐ No 23

10a. If so, what time?

☐ 1 before 9:00

☐ 2 between 9:00 and 10:00

☐ 3 between 10:00 and 11:00

☐ 4 11:00 or later 24

11. Does the staff take a count or make a check each day to be sure that none of the residents are missing? . . . . . ☐ Yes ☐ No 25

12. Are some areas of the building locked or out of bounds to residents at times (e.g., the dining area, the crafts room, certain lounges or stairways)? . . . . . ☐ Yes ☐ No 26

13. Are there regular visiting hours? . . . . . ☐ Yes ☐ No

13a. If so, what are the hours on a weekday? . . . . . _____ 28

14. Are there offices that are closed and private that can be used for interviewing residents? . . . . . ☐ Yes ☐ No

15. Is background music played in the building? . . . . . ☐ Yes ☐ No 30

PART III ACTIVITIES THAT TAKE PLACE IN THE FACILITY

For each activity, indicate the frequency of occurrence and about how many residents participate.

	Very rarely or never	Only a few times a year	Once or twice a month	Once a week or more	About how many residents participate?	
1. Exercises or other physical fitness activity	1 ☐	2 ☐	3 ☐	4 ☐	_____	31-33
2. Outside entertainment (e.g., pianist, singer)	☐	☐	☐	☐	_____	
3. Discussion groups .	☐	☐	☐	☐	_____	
4. Reality orientation group	☐	☐	☐	☐	_____	40-42
5. Self-help or mutual support group . . .	☐	☐	☐	☐	_____	
6. Films or movies . .	☐	☐	☐	☐	_____	
7. Club, social group, drama or singing groups	☐	☐	☐	☐	_____	49-51
8. Classes or lectures	☐	☐	☐	☐	_____	
9. Bingo, cards, or other games	☐	☐	☐	☐	_____	
10. Parties	☐	☐	☐	☐	_____	58-60
11. Religious services	☐	☐	☐	☐	_____	
12. Social hour (e.g., coffee or cocktail hour)	☐	☐	☐	☐	_____	
13. Arts and crafts . .	☐	☐	☐	☐	_____	67-69

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PART IV RULES RELATED TO POTENTIAL "PROBLEM" BEHAVIORS

	Allowed	Tolerated	Discouraged	Intolerable	
	1	2	3	4	
1. Refusing to participate in programmed activities . . .	☐	☐	☐	☐	1
2. Refusing to take prescribed medicine	☐	☐	☐	☐	
3. Taking medicine other than that which is prescribed. .	☐	☐	☐	☐	
4. Taking too much medicine, intentionally or otherwise	☐	☐	☐	☐	
5. Being drunk	☐	☐	☐	☐	5
6. Wandering around the building or grounds at night . .	☐	☐	☐	☐	
7. Leaving the building during the evening without letting anyone know	☐	☐	☐	☐	
8. Refusing to bathe or clean oneself regularly	☐	☐	☐	☐	
9. Creating a disturbance; being noisy or boisterous .	☐	☐	☐	☐	
10. Pilfering or stealing others' belongings	☐	☐	☐	☐	10
11. Damaging or destroying property, e.g., tearing books or magazines	☐	☐	☐	☐	
12. Verbally threatening another resident	☐	☐	☐	☐	
13. Physically attacking another resident	☐	☐	☐	☐	
14. Physically attacking a staff member	☐	☐	☐	☐	
15. Attempting suicide	☐	☐	☐	☐	15
16. Indecently exposing self	☐	☐	☐	☐	16

PART V RESIDENT PARTICIPATION

1. Are any of the residents hired and paid for jobs within the facility? . . . . . ☐ 1 Yes ☐ 2 No 17

2. Do any of the residents have other types of chores or duties (unpaid) which they perform here? . . . . . ☐ Yes ☐ No 18

   2a. If so, how many residents participate? . . . . . _____ 19-20

3. Is there a residents' council (i.e., residents who are elected or volunteer to represent residents at regularly scheduled meetings)? . . . . . ☐ Yes ☐ No 21

   3a. If so, how many residents are on it? . . . . . _____ 22-23

   3b. How often does it meet?

   1☐ once a week or more

   2☐ twice a month

   3☐ once a month or less 24

4. Are there regular "house meetings" for residents (a general meeting open to all residents)? . . . . . ☐ Yes ☐ No 25

   4a. If so, how often do they occur?

   1☐ twice a month or more

   2☐ once a month

   3☐ less than once a month

   4☐ only when needed 26

5. Are there resident committees (or committees that include residents as members)? . . . . . ☐ Yes ☐ No 27

   5a. If so, list the most important committees, the number of residents on each, and how often they meet.

Committee Name	Number of Residents	Frequency	
_____	_____	_____	28-31
_____	_____	_____	32-35
_____	_____	_____	36-39
_____	_____	_____	40-43
_____	_____	_____	44-47

6. Is there a newsletter? . . . . . ☐ 1 Yes ☐ 2 No 48

6a. If so, how often is it printed?

1☐ once a week or more

2☐ twice a month

3☐ once a month

4☐ less than once a month 49

6b. If so, is it primarily written by residents? . . . . ☐ Yes ☐ No 50

7. Is there a bulletin board? . . . . . ☐ Yes ☐ No

7a. If so, is it being used by residents? . . . . . ☐ Yes ☐ No

7b. Are rules and regulations posted on the bulletin board or in another convenient public location? . . ☐ Yes ☐ No 53

PART VI DECISION MAKING

To what extent are residents involved in policy-making in the following areas?

		Staff/Admin. basically decide by themselves	Staff/Admin. decide, but residents have input	Residents decide, but staff has input	Residents basically decide by themselves	
		1	2	3	4	
1.	Planning entertainment such as movies or parties	☐	☐	☐	☐	54
2.	Planning educational activities such as courses and lectures	☐	☐	☐	☐	
3.	Planning welcoming or orientation activities	☐	☐	☐	☐	
4.	Deciding what kinds of new activities or programs will occur	☐	☐	☐	☐	
5.	Making rules about attendance at activities	☐	☐	☐	☐	
6.	Planning daily or weekly menus	☐	☐	☐	☐	
7.	Setting mealtimes	☐	☐	☐	☐	60
8.	Setting visitors' hours . . .	☐	☐	☐	☐	
9.	Deciding on the decor of public areas, e.g., pictures, plants, etc.	☐	☐	☐	☐	
10.	Dealing with safety hazards	☐	☐	☐	☐	
11.	Dealing with residents' complaints	☐	☐	☐	☐	
12.	Making rules about the use of alcohol	☐	☐	☐	☐	65
13.	Selecting new residents . . .	☐	☐	☐	☐	
14.	Moving a resident from one bed or room to another	☐	☐	☐	☐	
15.	Deciding when a troublesome or sick resident will be asked to leave	☐	☐	☐	☐	
16.	Changes in staff (hiring or firing)	☐	☐	☐	☐	69

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APPENDIX C

SCES

SHELTERED CARE ENVIRONMENT SCALE - FORM R

Name (Optional)_____ Age_____

Name of Facility_____

☐ Male ☐ Female

How long have you lived or worked here? _____ _____ _____
Years Months Days

If you are a staff member, check the following box ☐

and indicate your staff position _____

Today's date _____

There are 63 questions here. They are statements about the place in which you live or work. Based on your experience here, please answer these questions YES or NO. Ask yourself which answer is generally true.

Circle YES if you think the statement is true or mostly true of this place.

Circle NO if you think the statement is false or mostly false of this place.

Please be sure to answer every question. Thank you for your cooperation.

Social Ecology Laboratory, Veterans Administration and Stanford University Medical Center, Palo Alto, California 94304

1.	Do residents get a lot of individual attention?	Yes	No
2.	Do residents ever start arguments?	Yes	No
3.	Do residents usually depend on the staff to set up activities for them?.	Yes	No
4.	Are residents careful about what they say to each other? . .	Yes	No
5.	Do residents always know when the staff will be around? . . .	Yes	No
6.	Is the staff strict about rules and regulations?	Yes	No
7.	Is the furniture here comfortable and homey?	Yes	No
8.	Do staff members spend a lot of time with residents?	Yes	No
9.	Is it unusual for residents to openly express their anger?	Yes	No
10.	Do residents usually wait for staff to suggest an idea or activity?	Yes	No
11.	Are personal problems openly talked about?	Yes	No
12.	Are activities for residents carefully planned?	Yes	No
13.	Are new and different ideas often tried out?	Yes	No
14.	Is it ever cold and drafty here?	Yes	No
15.	Do staff members sometimes talk down to residents?	Yes	No
16.	Do residents sometimes criticize or make fun of this place?	Yes	No
17.	Are residents taught how to deal with practical problems? . .	Yes	No
18.	Do residents tend to hide their feelings from one another?	Yes	No
19.	Do some residents look messy?	Yes	No
20.	If two residents fight with each other will they get in trouble?	Yes	No
21.	Can residents have privacy whenever they want?	Yes	No
22.	Are there a lot of social activities?	Yes	No
23.	Do residents usually keep their disagreements to themselves?	Yes	No
24.	Are many new skills taught here?	Yes	No

25. Do residents talk a lot about their fears? . . . . . Yes No

26. Do things always seem to be changing around here? . . . . . Yes No

27. Do staff allow the residents to break minor rules? . . . . . Yes No

28. Does this place seem crowded? . . . . . Yes No

29. Do a lot of the residents just seem to be passing time here? . . . . . Yes No

30. Is it unusual for residents to complain about each other? . . Yes No

31. Are residents learning to do more things on their own? . . . Yes No

32. Is it hard to tell how the residents are feeling? . . . . . Yes No

33. Do residents know what will happen to them if they break a rule? . . . . . Yes No

34. Are suggestions made by the residents acted upon? . . . . . Yes No

35. Is it sometimes very noisy here? . . . . . Yes No

36. Are requests made by residents usually taken care of right away? . . . . . Yes No

37. Is it always peaceful and quiet here? . . . . . Yes No

38. Are the residents strongly encouraged to make their own decisions? . . . . . Yes No

39. Do residents talk a lot about their past dreams and ambitions? . . . . . Yes No

40. Is there a lot of confusion here at times? . . . . . Yes No

41. Do residents have any say in making the rules? . . . . . Yes No

42. Does it ever smell bad here? . . . . . Yes No

43. Do staff members sometimes criticize residents over minor things? . . . . . Yes No

44. Do residents often get impatient with each other? . . . . . Yes No

45. Do residents sometimes take charge of activities? . . . . . Yes No

46. Do residents ever talk about illness and death? . . . . . Yes No

47. Is this place very well organized? . . . . . Yes No

48. Are the rules and regulations rather strictly enforced? . . . Yes No

49.	Is it ever hot and stuffy in here?	Yes	No
50.	Do residents tend to keep to themselves here?	Yes	No
51.	Do residents complain a lot?	Yes	No
52.	Do residents care more about the past than the future? . . .	Yes	No
53.	Do residents talk about their money problems?	Yes	No
54.	Are things sometimes unclear around here?	Yes	No
55.	Would a resident ever be asked to leave if he/she broke a rule?	Yes	No
56.	Is the lighting very good here?	Yes	No
57.	Are the discussions very interesting?	Yes	No
58.	Do residents criticize each other a lot?	Yes	No
59.	Are some of the residents' activities really challenging? . .	Yes	No
60.	Do residents keep their personal problems to themselves? . .	Yes	No
61.	Are people always changing their minds around here?	Yes	No
62.	Can residents change things here if they really try?	Yes	No
63.	Do the colors and decorations make this a warm and cheerful place?	Yes	No

APPENDIX D

PAF-1, POLIF-1, SCES-1

PHYSICAL AND ARCHITECTURAL FEATURES CHECKLIST--FORM I

In the next few years, new types of housing will be designed for older people. We want to know what you think is most important in an IDEAL group living setting for older people. Please answer the questions to describe the BEST POSSIBLE living environment.

Many older people find that they can no longer live alone in their own home or apartment. This may happen because they are in poor health, because their husband or wife has died, because it has become too expensive to keep up a house, or some combination of these factors. In such a situation, one alternative is to move to a group living setting where there are rooms or apartments and where meals are provided.

If the above statement described you, what would the BEST POSSIBLE place for you be like? We would like you to tell us whether each feature of the physical environment would be part of an IDEAL setting for you.

Not Important	This means that a feature would be not important in your IDEAL setting.
Desirable	This means that a feature would be desirable in your IDEAL setting.
Very Important	This means that a feature would be very important in your IDEAL setting.
Essential	This means that a feature would be essential in your IDEAL setting.

Place an "X" in the box for the answer that best describes your IDEAL setting. Please be sure to answer every question. Thank you for your help.

Your name (optional) _____ Date _____

Social Ecology Laboratory, Veterans Administration and Stanford University Medical Center, Palo Alto, California 94304

PART I NEIGHBORHOOD CONTEXT	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
1. Should the following community resources be located within easy walking distance of the facility (1/4 mile)?					
1a. Grocery store	☐	☐	☐	☐	1
1b. Drugstore	☐	☐	☐	☐	
1c. Senior citizens center	☐	☐	☐	☐	
1d. Movie theatre	☐	☐	☐	☐	
1e. Church or synagogue	☐	☐	☐	☐	5
1f. Public library	☐	☐	☐	☐	
1g. Bank	☐	☐	☐	☐	
1h. Hospital	☐	☐	☐	☐	
1i. Doctor's office	☐	☐	☐	☐	
1j. Dentist's office	☐	☐	☐	☐	10
1k. Post office	☐	☐	☐	☐	
1l. Park	☐	☐	☐	☐	
2. Should the city or town within which this facility is located have a public transportation system?	☐	☐	☐	☐	
3. Should a public transportation stop be within easy walking distance (1/4 mile)?	☐	☐	☐	☐	
3a. If so, should it have benches? . .	☐	☐	☐	☐	
4. Should there be lights in the surrounding streets?	☐	☐	☐	☐	15

PART II EXTERIOR OF BUILDING	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
1. Should the main entrance be sheltered from sun and rain?	☐	☐	☐	☐	17
2. Should the area outside the building be well lighted?	☐	☐	☐	☐	
3. Should the outside walk and entrance be visible:					
3a. from seating spaces in the lobby or a ground floor social space? . . .	☐	☐	☐	☐	
3b. from the office or station of an employee?	☐	☐	☐	☐	20
4. Should there be outside seating in the front of the building?	☐	☐	☐	☐	
4a. For safety, should it be visible from the entrance lobby or a ground floor social space?	☐	☐	☐	☐	
4b. For safety, should it be visible from the office or station of an employee?	☐	☐	☐	☐	
4c. Should it be protected from the weather?	☐	☐	☐	☐	
4d. Should it provide a view of pedestrians and other activity?	☐	☐	☐	☐	25
5. Should there be a patio or open courtyard?	☐	☐	☐	☐	
6. Consider the outside of the building:					
6a. Should tables be available?	☐	☐	☐	☐	
6b. Should umbrella tables be available?	☐	☐	☐	☐	
6c. Should the outdoor furniture be in good condition?	☐	☐	☐	☐	
6d. Should there be a covered area that is rainproof?	☐	☐	☐	☐	30

	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
6e. Should there be an area with a sun screen (not necessarily rainproof) or protection from the sun (e.g., trees)?	☐	☐	☐	☐	31
6f. Should there be a barbeque?	☐	☐	☐	☐	
6g. Should there be a shuffleboard game area?	☐	☐	☐	☐	
7. Should there be a garden area for resident use?.	☐	☐	☐	☐	
8. Should there be a lawn?.	☐	☐	☐	☐	35
9. Should there be reserved parking for handicapped people?	☐	☐	☐	☐	
10. Should there be parking for staff? . . .	☐	☐	☐	☐	
11. Should there be parking for visitors? .	☐	☐	☐	☐	

PART III LOBBY AND ENTRANCE AREA

1. Should one be able to enter the building from the street without having to use any stairs?	☐	☐	☐	☐	
2. For safety, should entry from outside be limited to at most one unlocked door? .	☐	☐	☐	☐	40
3. Should there be a bell or call system outside?	☐	☐	☐	☐	
4. Should written instructions be posted outside that explain how to get in if the front door is locked?	☐	☐	☐	☐	
5. Should the front door open automatically?	☐	☐	☐	☐	
6. Should the front door swing closed by itself?	☐	☐	☐	☐	
7. Should the front door be wide enough for a wheelchair?	☐	☐	☐	☐	45

	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
8. For safety, should there be an individual who usually monitors the entrance to the building?	☐	☐	☐	☐	46
9. Should there be a reception area or reception desk?	☐	☐	☐	☐	
10. Should there be a place for visitors to sign in?	☐	☐	☐	☐	
11. Should there be seating in the lobby? .	☐	☐	☐	☐	
12. Should there be a comfortably furnished lounge near the entrance?	☐	☐	☐	☐	50
13. Should one be able to see into the lobby or entrance area from a community room or other ground floor social space?	☐	☐	☐	☐	
14. Should there be at least one large clock in the lobby or entrance area?	☐	☐	☐	☐	
PART IV HALL AND STAIRWAY AREAS					
1. Should the hallways be wide enough for two wheelchairs to pass each other? . .	☐	☐	☐	☐	
2. Should the hallways be uncrowded and free of obstructions?	☐	☐	☐	☐	
3. Should there be handrails in the halls?	☐	☐	☐	☐	55
4. Should the halls be decorated (for example, with pictures or plants)? . . .	☐	☐	☐	☐	
5. Should there be drinking fountains? . .	☐	☐	☐	☐	
5a. Should they be accessible to wheelchair residents?	☐	☐	☐	☐	
5b. Should there be at least one drinking fountain on each floor of the building?	☐	☐	☐	☐	59

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	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
6. Should there be public telephones? . . .	☐	☐	☐	☐	1
6a. Should there be a writing surface by the phone?	☐	☐	☐	☐	
6b. Should at least one public phone be accessible to wheelchair residents?	☐	☐	☐	☐	
6c. Should at least one phone have a loudness control in the receiver for people who are hard of hearing? . .	☐	☐	☐	☐	
6d. Should there be at least one public phone on each floor of the building?	☐	☐	☐	☐	5
7. Should there be smoke detection devices in the halls?	☐	☐	☐	☐	
8. Should a resident be able to go anywhere in the building without having to climb any steps	☐	☐	☐	☐	
9. Should all stairs be well lighted? . . .	☐	☐	☐	☐	
10. Should there be nonskid surfaces on stairs and ramps?	☐	☐	☐	☐	
11. Should each corridor or floor be color-coded or numbered?	☐	☐	☐	☐	10
12. Should residents' names be on or next to their doors?	☐	☐	☐	☐	
13. Should it be easy for new residents to find their way around the building? . .	☐	☐	☐	☐	

PART V LOUNGE AND COMMUNITY ROOM AREAS

1. Should there be at least two rooms for resident activities (such as visiting, playing cards, social activities)? . . .	☐	☐	☐	☐	
2. Should at least one of these rooms be near an entrance or traveled hallway? .	☐	☐	☐	☐	14

	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
3. Should there be writing desks or tables?	☐	☐	☐	☐	15
4. Should there be small tables for several people to sit and talk or play games?	☐	☐	☐	☐	
5. Should reading material be available on tables or shelves?	☐	☐	☐	☐	
6. Should there be table lamps in the lounges?	☐	☐	☐	☐	
7. Should the furniture be spaced wide enough for wheelchairs?	☐	☐	☐	☐	
8. Should there be a quiet lounge with no television?.	☐	☐	☐	☐	20
PART VI RECREATION AND DINING AREAS					
1. Should the dining room provide a choice of small and large tables to sit at? . .	☐	☐	☐	☐	
2. Should the aisle space between tables in the dining room be wide enough for a wheelchair?	☐	☐	☐	☐	
3. Should there be a library from which books can be borrowed?	☐	☐	☐	☐	
4. Should there be a music or listening room?	☐	☐	☐	☐	
Should the following recreational or special activity materials be available?					
5. Pool or billiard table?	☐	☐	☐	☐	25
6. Ping pong table?	☐	☐	☐	☐	
7. Piano or organ?	☐	☐	☐	☐	
8. One or more television sets?	☐	☐	☐	☐	
9. One or more phonographs?	☐	☐	☐	☐	
10. One or more radios?	☐	☐	☐	☐	
11. One or more sewing machines?	☐	☐	☐	☐	31

PART VII GENERAL FACILITIES	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
1. Should a map showing community facilities be available in a convenient location?	☐	☐	☐	☐	32
2. Should there be a bulletin board in a public location?	☐	☐	☐	☐	
3. Should there be a posted list of the staff?	☐	☐	☐	☐	
3a. If so, should it include pictures?	☐	☐	☐	☐	35
4. Should there be a posted list of residents?	☐	☐	☐	☐	
4a. If so, should it include pictures?	☐	☐	☐	☐	
5. Should there be a sound system or public address system?	☐	☐	☐	☐	
6. Should there be an air-conditioning system?	☐	☐	☐	☐	
7. Should there be a chapel or meditation room?	☐	☐	☐	☐	40
8. Should there be a gift shop or store? .	☐	☐	☐	☐	
9. Should residents and their visitors have access to a kitchen area?	☐	☐	☐	☐	
10. Should there be a snack bar?	☐	☐	☐	☐	
11. Should there be vending machines for candy or soft drinks for residents' use?	☐	☐	☐	☐	
12. Should there be a laundry area for residents' use?	☐	☐	☐	☐	45

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PART VIII BATHROOM AND TOILET AREAS	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
1. Should the bathroom doors open out? . .	☐	☐	☐	☐	1
2. Should the threshold to the bathroom be level so that walkers or wheelchairs can enter easily?	☐	☐	☐	☐	
3. Should there be handrails or safety bars in the bathroom?	☐	☐	☐	☐	
4. Should there be lift bars next to the toilet?	☐	☐	☐	☐	
5. Should the towel racks and dispensers be accessible to residents in wheelchairs?	☐	☐	☐	☐	5
6. Should there be a mirror in every bathroom?	☐	☐	☐	☐	
7. Should there be non-slip surfaces in all areas that may get wet?	☐	☐	☐	☐	
8. Should there be a call button in every bathroom?	☐	☐	☐	☐	
9. Should there be turning radius for a wheelchair in the bathroom (a 5-ft. circle)?	☐	☐	☐	☐	
10. Should there be a flexible shower (i.e., where the shower head is mounted on the end of a long flexible hose to make bathing easier)?	☐	☐	☐	☐	10
11. Should a seat be included in the shower?	☐	☐	☐	☐	
12. Should a wheelchair-entered shower be available in some rooms or apartments? .	☐	☐	☐	☐	
13. Should each resident have access to both a bathtub and a shower?	☐	☐	☐	☐	13

PART IX INDIVIDUAL ROOMS OR APARTMENTS	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
1. Should residents be able to hang pictures on the walls of their room or apartment?	☐	☐	☐	☐	14
2. Should there be wall lights (or table lamps) that give adequate light for reading?	☐	☐	☐	☐	
3. Should there be a mirror in every room or apartment?	☐	☐	☐	☐	
4. Should there be at least one window sill that is wide enough to hold flowers? . .	☐	☐	☐	☐	
5. Should the floors be a light color? . .	☐	☐	☐	☐	
6. Should the walls be a light color? . . .	☐	☐	☐	☐	
7. Should there be individual heating controls in all rooms or apartments? . .	☐	☐	☐	☐	20
8. Should there be individual air-conditioning controls in all rooms or apartments?	☐	☐	☐	☐	
9. Should residents be able to have a telephone in their rooms?	☐	☐	☐	☐	
10. Should there be enough space for wheelchair use in the rooms or apartments?	☐	☐	☐	☐	
11. Should there be handrails in the rooms?	☐	☐	☐	☐	
12. Should there be smoke detection devices in the rooms?	☐	☐	☐	☐	
13. Should there be a call button in every room?	☐	☐	☐	☐	26

PART X STAFF AND OFFICE AREAS	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
1. Should there be private offices for administrative staff?	☐	☐	☐	☐	27
2. Should there be office space for secretarial and clerical staff?	☐	☐	☐	☐	
3. Should there be offices for social service and counseling staff?	☐	☐	☐	☐	
4. Should there be additional office space for other staff (e.g., activity director, volunteers, part-time staff)?	☐	☐	☐	☐	30
5. Should the offices be free of distractions?	☐	☐	☐	☐	
6. Should there be a separate room for handling mail, copying and/or printing? . .	☐	☐	☐	☐	
7. Should there be a conference room? . . .	☐	☐	☐	☐	
8. Should there be a staff lounge?	☐	☐	☐	☐	
8a. If so, should it have tables? . . .	☐	☐	☐	☐	
8b. Should it have comfortable chairs?	☐	☐	☐	☐	
8c. Should the lounge be large enough to accommodate at least half the staff at one time?	☐	☐	☐	☐	37

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POLICY AND PROGRAM INFORMATION FORM--FORM I

In the next few years, new types of housing will be designed for older people. We want to know what you think is most important in an IDEAL group living setting for older people. Please answer the questions to describe the BEST POSSIBLE living environment.

Many older people find that they can no longer live alone in their own home or apartment. This may happen because they are in poor health, because their husband or wife has died, because it has become too expensive to keep up a house, or some combination of these factors. In such a situation, one alternative is to move to a group living setting where there are rooms or apartments and where meals are provided.

If the above statement described you, what would the BEST POSSIBLE place for you be like? We would like you to tell us whether each policy or program feature would be part of an IDEAL setting for you.

Some questions will ask you to decide whether a particular policy or program feature should Definitely Not, Prefereably Not, Preferably Yes, or Definitely Yes be part of an ideal setting for you. Other questions will ask whether a program feature is Not Important, Desirable, Very Important or Essential in an ideal setting. Place an "X" in the box for the answer that best describes your IDEAL setting. Please be sure to answer every question. Thank you for your help.

Your name (optional) _____ Date _____

Social Ecology Laboratory, Veterans Administration and Stanford University Medical Center, Palo Alto, California 94304

PART I EXPECTATIONS ABOUT ABILITIES	DEFINITELY NOT 1	PREFERABLY NOT 2	PREFERABLY YES 3	DEFINITELY YES 4	
SHOULD the following resident behaviors be tolerated?					
1. Being unable to make one's own bed . .	☐	☐	☐	☐	1
2. Being unable to walk without assistance	☐	☐	☐	☐	
3. Being unable to clean one's own room .	☐	☐	☐	☐	
4. Being unable to feed oneself	☐	☐	☐	☐	
5. Being unable to bathe oneself	☐	☐	☐	☐	5
6. Being unable to dress oneself	☐	☐	☐	☐	
7. Being incontinent (of urine or feces) .	☐	☐	☐	☐	
8. Being confused or disoriented	☐	☐	☐	☐	
9. Being depressed, crying frequently . .	☐	☐	☐	☐	
10. Refusing to participate in activities .	☐	☐	☐	☐	10
11. Refusing to take prescribed medicine .	☐	☐	☐	☐	
12. Taking medicine other than that which is prescribed	☐	☐	☐	☐	
PART II RULES AND BEHAVIORS					
SHOULD the following be allowed?					
1. Drinking liquor in one's own room . . .	☐	☐	☐	☐	
2. Having one's own furniture in the room	☐	☐	☐	☐	
3. Moving furniture around the room . . .	☐	☐	☐	☐	
4. Keeping a fish or bird in the room . .	☐	☐	☐	☐	16

	DEFINITELY NOT 1	PREFERABLY NOT 2	PREFERABLY YES 3	DEFINITELY YES 4	
5. Keeping a hot plate or coffee maker in the room	☐	☐	☐	☐	17
6. Doing some laundry in the bathroom . .	☐	☐	☐	☐	
7. Drinking a glass of wine or beer at meals	☐	☐	☐	☐	
8. Skipping breakfast to sleep late . . .	☐	☐	☐	☐	20

PART III SERVICES AND PROCEDURES

1. If meals are provided, should there be at least an hour's range during which residents can choose to eat:				
1a. breakfast?	☐	☐	☐	☐	
1b. lunch?	☐	☐	☐	☐	
1c. dinner?	☐	☐	☐	☐	
2. Should residents be able to sit wherever they want at meals?	☐	☐	☐	☐	
3. Should residents be able to get up in the morning whenever they wish?	☐	☐	☐	☐	25
4. Should residents be able to schedule baths or showers whenever they wish? .	☐	☐	☐	☐	
5. Should residents be able to go to bed at night whenever they wish?	☐	☐	☐	☐	
6. Should residents be able to stay out in the evening as late as they wish? .	☐	☐	☐	☐	
7. Should all public areas of the building be open to residents at all times? . .	☐	☐	☐	☐	
8. Should visiting hours allow for at least 11 hours of visiting a day? . . .	☐	☐	☐	☐	
9. Should a staff member take attendance or count residents at mealtimes? . . .	☐	☐	☐	☐	31

	DEFINITELY NOT 1	PREFERABLY NOT 2	PREFERABLY YES 3	DEFINITELY YES 4	
10. Should the staff check each day to make sure that none of the residents are missing?	☐	☐	☐	☐	32
11. Should background music be played in the building?	☐	☐	☐	☐	

PART IV RULES ABOUT PROBLEM BEHAVIORS

As a general rule, SHOULD residents who persist in the following behaviors be allowed to remain in the facility?

1. Intentionally taking too much medicine	☐	☐	☐	☐	
2. Being drunk	☐	☐	☐	☐	35
3. Wandering around the building or grounds at night	☐	☐	☐	☐	
4. Leaving the building during the evening without letting anyone know	☐	☐	☐	☐	
5. Refusing to bathe or clean oneself regularly	☐	☐	☐	☐	
6. Creating a disturbance; being noisy or boisterous	☐	☐	☐	☐	
7. Stealing other residents' belongings .	☐	☐	☐	☐	40
8. Damaging or destroying property, e.g., tearing books or magazines	☐	☐	☐	☐	
9. Verbally threatening another resident .	☐	☐	☐	☐	
10. Physically attacking another resident .	☐	☐	☐	☐	
11. Physically attacking a staff member . .	☐	☐	☐	☐	
12. Attempting suicide	☐	☐	☐	☐	
13. Indecently exposing themselves	☐	☐	☐	☐	46

PART V RESIDENT PARTICIPATION	DEFINITELY NOT 1	PREFERABLY NOT 2	PREFERABLY YES 3	DEFINITELY YES 4	
1. Should any of the residents be hired and paid for jobs in the building? . .	☐	☐	☐	☐	47
2. Should residents be able to perform chores or duties (unpaid) in the building if they wish?	☐	☐	☐	☐	
2a. Should at least 10% of the residents be involved in chores around the facility?	☐	☐	☐	☐	
3. Should there be a residents' council (that is, residents who are elected to represent other residents at regular meetings)?	☐	☐	☐	☐	50
3a. If so, should the residents' council meet at least twice a month?	☐	☐	☐	☐	
3b. Should there be at least one representative on the residents' council for every 25 residents? .	☐	☐	☐	☐	
4. Should there be regular "house meetings" for residents (a general meeting open to all residents)?	☐	☐	☐	☐	
4a. If so, should the house meetings occur at least once a month? . . .	☐	☐	☐	☐	
5. Should there be one or more committees that include residents as members? . .	☐	☐	☐	☐	55
5a. Should committees meet at least once a month?	☐	☐	☐	☐	
5b. Should committees include at least 10% of the residents? . . .	☐	☐	☐	☐	
6. Should there be a newsletter primarily written by residents?	☐	☐	☐	☐	
7. Should there be a bulletin board that is used by residents?	☐	☐	☐	☐	59

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PART VI DECISION MAKING	DEFINITELY NOT 1	PREFERABLY NOT 2	PREFERABLY YES 3	DEFINITELY YES 4	
SHOULD residents be LARGELY RESPONSIBLE for:					
1. Planning entertainment such as movies or parties?	☐	☐	☐	☐	1
2. Planning educational activities such as courses and lectures?	☐	☐	☐	☐	
3. Planning welcoming or orientation activities?	☐	☐	☐	☐	
4. Deciding what kinds of new activities or programs will occur?	☐	☐	☐	☐	
5. Making rules about attendance at activities?	☐	☐	☐	☐	5
SHOULD residents have AT LEAST SOME RESPONSIBILITY for:					
6. Planning daily or weekly menus?	☐	☐	☐	☐	
7. Setting mealtimes?	☐	☐	☐	☐	
8. Setting visitors' hours?	☐	☐	☐	☐	
9. Deciding on the decor of public areas (e.g., pictures in halls, plants, etc.)?	☐	☐	☐	☐	
10. Dealing with safety hazards?	☐	☐	☐	☐	10
11. Dealing with residents' complaints? . .	☐	☐	☐	☐	
12. Making rules about the use of alcohol?	☐	☐	☐	☐	
13. Selecting new residents?	☐	☐	☐	☐	
14. Moving a resident from one bed or room to another?	☐	☐	☐	☐	
15. Deciding when a troublesome or sick resident should be asked to leave? . .	☐	☐	☐	☐	15
16. Changes in staff (hiring or firing)? .	☐	☐	☐	☐	16

PART VII TYPES OF ROOMS AND PRIVACY	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
1. Should every resident have the option of a private room?	☐	☐	☐	☐	17
2. Should every resident have the option of a private bathroom?	☐	☐	☐	☐	
3. Consider a situation in which some residents must share rooms:					
3a. Should there be a limit of two persons who share a bedroom or apartment?	☐	☐	☐	☐	
3b. Should there be a limit of two persons who share a bathroom? . .	☐	☐	☐	☐	20
4. Should residents have their own private mailboxes?	☐	☐	☐	☐	
5. Should each resident be allowed to have a separate dresser?	☐	☐	☐	☐	
6. Should there be locks on all bathroom doors?	☐	☐	☐	☐	
7. Should residents be able to close the door to their room or apartment? . . .	☐	☐	☐	☐	
8. Should residents be able to lock the door to their room or apartment? . . .	☐	☐	☐	☐	25
9. Should there be private staff offices that can be used for interviewing residents?	☐	☐	☐	☐	
PART VIII POLICIES AND GENERAL INFORMATION					
1. Should there be an orientation handbook for residents?	☐	☐	☐	☐	
2. Should there be an orientation handbook for staff?	☐	☐	☐	☐	
3. Should there be an orientation program for new residents?	☐	☐	☐	☐	
4. Should there be an orientation program for new staff?	☐	☐	☐	☐	30

	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
5. Should there be formal staff meetings?	☐	☐	☐	☐	31
5a. If so, should the staff meetings be held at least once a week? . .	☐	☐	☐	☐	
6. If there are volunteers, should they have an orientation program?	☐	☐	☐	☐	
7. Should there be a newsletter?	☐	☐	☐	☐	
7a. If so, should the newsletter be printed at least once a month? . .	☐	☐	☐	☐	35
8. Should rules and regulations be posted on the bulletin board or in another convenient public location?	☐	☐	☐	☐	

PART IX HEALTH SERVICES

SHOULD the following health services be provided?

1. Regularly scheduled doctor's hours . .	☐	☐	☐	☐	
2. Doctor on call	☐	☐	☐	☐	
3. Regularly scheduled nurse's hours . . .	☐	☐	☐	☐	
4. Assistance in using prescribed medications	☐	☐	☐	☐	40
5. On-site medical clinic	☐	☐	☐	☐	
6. Physical therapy	☐	☐	☐	☐	
7. Occupational therapy	☐	☐	☐	☐	
8. Psychotherapy or personal counseling .	☐	☐	☐	☐	44

PART X ASSISTANCE IN DAILY LIVING

SHOULD the following services to aid daily living be provided?

	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
1. Assistance with housekeeping or cleaning	☐	☐	☐	☐	45
2. Assistance with personal care or grooming	☐	☐	☐	☐	
3. Religious advice or counseling	☐	☐	☐	☐	
4. Legal advice or counseling	☐	☐	☐	☐	
5. Assistance with banking or other financial matters	☐	☐	☐	☐	
6. Barber or beauty service	☐	☐	☐	☐	50
7. Assistance with laundry or linen service	☐	☐	☐	☐	
8. Assistance with shopping	☐	☐	☐	☐	
9. Transportation (e.g., mini-bus or pickup car)	☐	☐	☐	☐	
10. Handling spending money for residents .	☐	☐	☐	☐	
11. Serving breakfast every day	☐	☐	☐	☐	55
12. Serving lunch every day	☐	☐	☐	☐	
13. Serving dinner every day	☐	☐	☐	☐	
14. Serving snacks in the afternoon or evening	☐	☐	☐	☐	58

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PART XI FACILITY ACTIVITIES	NOT IMPORTANT 1	DESIRABLE 2	VERY IMPORTANT 3	ESSENTIAL 4	
SHOULD the following social and recreational activities be provided AT LEAST TWICE A MONTH?					
1. Exercises or other physical fitness activity	☐	☐	☐	☐	1
2. Outside entertainment (e.g., pianist, singer)	☐	☐	☐	☐	
3. Discussion groups	☐	☐	☐	☐	
4. Reality orientation group	☐	☐	☐	☐	
5. Self-help or mutual support group . . .	☐	☐	☐	☐	5
6. Films or movies	☐	☐	☐	☐	
7. Clubs, social groups, drama or singing groups	☐	☐	☐	☐	
8. Classes or lectures	☐	☐	☐	☐	
9. Bingo, cards, or other games	☐	☐	☐	☐	
10. Parties	☐	☐	☐	☐	10
11. Religious services	☐	☐	☐	☐	
12. Social hour (e.g., coffee or cocktail hour)	☐	☐	☐	☐	
13. Arts and crafts	☐	☐	☐	☐	13

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SHELTERED CARE ENVIRONMENT SCALE--FORM I

Name (Optional)_____ Age_____

Name of Facility_____

☐ Male ☐ Female

How long have you lived or worked here? _____ Years _____ Months _____ Days

If you are a staff member, check the following box ☐

and indicate your staff position _____

Today's date _____

There are 63 questions here. They ask you what you think an Ideal residential setting would be like. You are to decide which statements would be true of an Ideal residential setting and which would be false.

Circle YES if you think the statement is true or mostly true of an Ideal residential setting.

Circle NO if you think the statement is false or mostly false of an Ideal residential setting.

Please be sure to answer every question. Thank you for your cooperation.

1.	Would residents get a lot of individual attention?	Yes	No
2.	Would residents ever start arguments?	Yes	No
3.	Would residents usually depend on the staff to set up activities for them?.	Yes	No
4.	Would residents be careful about what they say to each other?	Yes	No
5.	Would residents always know when the staff would be around?	Yes	No
6.	Would the staff be strict about rules and regulations? . . .	Yes	No
7.	Would the furniture be comfortable and homey?	Yes	No
8.	Would staff members spend a lot of time with residents? . . .	Yes	No
9.	Would it be unusual for residents to openly express their anger?	Yes	No
10.	Would residents usually wait for staff to suggest an idea or activity?	Yes	No
11.	Would personal problems be openly talked about?	Yes	No
12.	Would activities for residents be carefully planned?	Yes	No
13.	Would new and different ideas often be tried out?	Yes	No
14.	Would it ever be cold and drafty?	Yes	No
15.	Would staff members sometimes talk down to residents?	Yes	No
16.	Would residents sometimes criticize or make fun of the place?	Yes	No
17.	Would residents be taught how to deal with practical problems?	Yes	No
18.	Would residents tend to hide their feelings from one another?	Yes	No
19.	Would some residents look messy?	Yes	No
20.	If two residents fought with each other would they get in trouble?	Yes	No
21.	Would residents be able to have privacy whenever they want? .	Yes	No
22.	Would there be a lot of social activities?	Yes	No

23. Would residents usually keep their disagreements to themselves? . . . . . Yes No

24. Would many new skills be taught? . . . . . Yes No

25. Would residents talk a lot about their fears? . . . . . Yes No

26. Would things always seem to be changing? . . . . . Yes No

27. Would staff allow the residents to break minor rules? . . . . Yes No

28. Would the place seem crowded? . . . . . Yes No

29. Would a lot of the residents just seem to be passing time? . Yes No

30. Would it be unusual for residents to complain about each other? . . . . . Yes No

31. Would residents be learning to do more things on their own? . Yes No

32. Would it be hard to tell how the residents are feeling? . . . Yes No

33. Would residents know what would happen to them if they broke a rule? . . . . . Yes No

34. Would suggestions made by the residents be acted upon? . . . Yes No

35. Would it sometimes be very noisy? . . . . . Yes No

36. Would requests made by residents usually be taken care of right away? . . . . . Yes No

37. Would it always be peaceful and quiet? . . . . . Yes No

38. Would the residents be strongly encouraged to make their own decisions? . . . . . Yes No

39. Would residents talk a lot about their past dreams and ambitions? . . . . . Yes No

40. Would there be a lot of confusion at times? . . . . . Yes No

41. Would residents have any say in making the rules? . . . . . Yes No

42. Would it ever smell bad? . . . . . Yes No

43. Would staff members sometimes criticize residents over minor things? . . . . . Yes No

44. Would residents often get impatient with each other? . . . . Yes No

45. Would residents sometimes take charge of activities? . . . . Yes No

46. Would residents ever talk about illness and death? . . . . . Yes No

47.	Would the place be very well organized?	Yes	No
48.	Would the rules and regulations be rather strictly enforced?	Yes	No
49.	Would it ever be hot and stuffy?	Yes	No
50.	Would residents tend to keep to themselves?	Yes	No
51.	Would residents complain a lot?	Yes	No
52.	Would residents care more about the past than the future? . .	Yes	No
53.	Would residents talk about their money problems?	Yes	No
54.	Would things sometimes be unclear?	Yes	No
55.	Would a resident ever be asked to leave if he/she broke a rule?	Yes	No
56.	Would the lighting be very good?	Yes	No
57.	Would the discussions be very interesting?	Yes	No
58.	Would residents criticize each other a lot?	Yes	No
59.	Would some of the residents' activities be really challenging?	Yes	No
60.	Would residents keep their personal problems to themselves? .	Yes	No
61.	Would people always be changing their minds?	Yes	No
62.	Would residents be able to change things if they really tried?	Yes	No
63.	Would the colors and decorations make the place warm and cheerful?	Yes	No

APPENDIX E

Interview Questions

Interview Questions

1. What is the mission of this organization? Is there a written mission statement?

2. Is there a strategic plan for the organization? Who prepared the strategic plan? Who prepares the budget? What is the role of the administrator in developing the plan for the facility and in preparing the budget?

3. What is the therapeutic plan for the unit under observation? How were physical facilities considered as it was being formulated? What is the current philosophy of care? Was the facility developed in response to a particular philosophy of care? Does the facility now appear to function in a manner that supports this philosophy or does it work against it?

4. Does the design and arrangement of the facility make staffing easy or difficult? Please explain.

5. What different types of users (i.e., dementia, family, staff) were considered in the original design of the facility? Were there any others?

6. Does the organization have a long-term plan for acquisition and development of properties? Of what does it consist? Is there a long-term space and grounds utilization plan? Who prepares it; how is it formulated?

7. How are growth and change managed? Will the physical structure accommodate future expansion or shifts to other specialized forms of care (i.e., units for dementia, private rooms)

8. In your site selection for your facility what were the determining factors? What are the plans and general protocols for maintenance and housekeeping of the facility?

    a. Does the design of the building contribute to the ease of maintenance and housekeeping, or does it work against it?

    b. With references to decisions concerning the basic configuration of the building: do you know if maintenance and housekeeping procedures have an impact upon design decisions at the original design stage of the facility?

9. What are the criteria for selection of furniture and finishes, relative to maintenance and management of the facility? Do you know if these have changed since the initial building construction?

10. What are the provisions for security and safety -- were they considered in the initial design of the facility?

11. Do you know what criteria were used for the selection of technical equipment, environmental controls, etc.? Are they easy to monitor and service? What is their record of failure?

12. What kinds of acoustical controls have been used?

13. What are the methods of keeping records of the facility and its equipment? Do you believe they are sufficiently thorough and systematic? Are they computerized and integrated? Do they include costs and budget, plans for maintenance, servicing, and replacement?

14. Is there a plan for evaluation of the performance of the building? What is it?

15. Is there a facility within your organization which is a "model" in terms of design? (a) staff organization, and (b) management of the physical facility?

16. What role do you believe the building administrator plays in good facility management?

17. What type of orientation do you provide for residents? Do any residents have difficulty locating their rooms? What technique do you use to help them?

18. Does your facility separate high and low cognitive functioning residents?

19. How many of your residents experience dementia? How many of these are high functioning? How would you rate the incontinence level among residents? How is it addressed (e.g., policy-not allowed, programmatic-scheduled toileting; environmental- and tile cuing)?

20. What percentage of your population require intensive medical care?

21. Is your payment based on level of care provided? For example are residents who are not ambulatory or are incontinent charged more for your services? Aside from the obvious cost differences in private vs. shared rooms, which in your opinion is most desirable?

22. What is your resident to staff ratio? What is your rate of staff turnover?

23. When hiring staff, how frequently do these individuals have previous nursing home experience? Do you have a preference for experienced staff? Why?

24. Do you have an in-house training program for staff that conveys your care philosophy? If so, how does it project a positive orientation in working with residents and other staff members?

25. Does your facility provide a separate removed area for paperwork and or staff retreat for relaxation? Where are they? Are the use of these areas encouraged? How frequently are they used?

26. Where are staff meetings held?

27. What activities are provided for residents? When do they take place?

28. Are residents encouraged to participate in household activities (e.g., laundry, gardening, cooking)?

29. Are activities for the high functioning residents separated from the activities for low functioning residents?

30. How do activities vary from weekday and weekend? How are they related to time of day and day of week (e.g., church service on Sunday, family and visitors on Sunday)?

31. How often are your outdoor areas used by residents? by staff?

32. Are the resources of local services and citizens used for the facility activities when appropriate? What kind of interaction occur with community groups? How convenient are services (i.e., banks, library)?