This presentation is intended to relate personal and physical space needs of mentally retarded people in residential facilities to their general well being.

Far too little consideration has been given to personal and cultural space needs and interactions with environment when planning residences for mentally retarded people, especially for those who are severely and profoundly retarded or have an overlay of emotional difficulties. There is a point at which the reliance on general concepts, such as the normalization principal is inadequate. Planning of new residential facilities, especially in the community, is advancing rapidly and a next step should be more careful consideration of human space needs and relationships within space. I will talk primarily about interior spaces, however the whole area of extended space also needs consideration.

When most people today, think of space they think of moon landings, and orbiting exploratory space vehicles. Not too often do we think about personal and social space and especially space requirements and needs of people in residential facilities for mentally retarded.

We think about space in residential facilities in the number of square feet required by government regulations and develop our own theories and learn from others, in spite of the regulations.
TYPES OF SPACE CONSIDERATIONS

Too little attention has been given to living areas for mentally retarded or to the different size and types of areas necessary for different handicapped people.

When planning or remodeling residential facilities for mentally retarded children and adults we need to broadly consider many aspects of space, such as:

1. **Fixed feature space** or the physical structures,
2. **Semi-fixed features**, including furniture, and,
3. **Informal space considerations** - such as distance maintained in contacts with others; relating to individual needs for personal space.

SENSORY SPACE

We need to be aware of sensory space as it effects visual, olfactory, thermal, tactile, and kinesthetic processes, and considerations relating especially to space and distances between people.

We are all aware of the amount of living space we have, or wish we had. We usually verbalize our desires such as wishing for a larger house with a larger living room or dining room, with more or larger bedrooms, or a house with a den, sewing room or personal office. The general population has substantial control over the living space they occupy and the way in which they use their space.

We have control over our movements within our home and freedom to leave it at almost anytime. We can rearrange our homes within and sell them if we choose to live elsewhere.
PHYSICAL SPACE

Because of time limits I will speak primarily about physical space.

There are several ways in which this could be approached. We could compare living space for so-called normal people to provisions for mentally retarded in residential facilities, or relate State operated and privately operated facilities to average space needs for normal people. Comparisons could be made with institutions for criminals, mentally ill, or elderly.

Although we as "normal" persons can choose our own personal space, change it - move about in it and even leave it for other spaces, mentally retarded confined to restrictive facilities must make do with the space assigned to them. They have few choices about their physical space. They are limited by regulations, over which they have no control and they must live with other persons, usually not of their own choosing. They must depend on the "experts" to define their space needs. Too often the experts depend on personal feelings and experiences and do not, or are unable to understand the special space needs of those to be served.

REGULATIONS

The experts are usually limited by regulations and finances as well as the inability of program professionals to understand or explain space needs. For instance the bedroom space requirements in United States Intermediate Care regulations of 1978 set 80 sq.ft., (7.5 sq. meters) per person in a single room as minimum. Regulators are unable to explain how these minimums were set. The best information I could obtain from the Minnesota Department of Health was that initially these space regulations were based on Federal Grant and Aid
specifications for construction of skilled nursing homes for elderly and for general hospitals.

To deal with this issue in an entirely concrete way would be simplest; a square foot or square meter approach. This would look at the area needed for beds, tables, chairs, bookcases, etc. It would also be possible to calculate the space needed to furnish a room for children or adults. It would be very difficult however to know how much space should be provided for mentally retarded persons with acting out behavior as compared with severely or profoundly retarded, not acting out people.

**SOME SPACE COMPARISONS**

We know that there are great variations in space for normal people. An average house for a family of four might have 1,200 sq. ft. (112 sq. meters) or 300 sq.ft. (28 sq. meters) per person. The minimum amount of space required by accreditation standards for a prison cell in the United States is 60-80 sq. ft., (5.8 to 7.4 sq. meters,) single rooms only, this is considered to be the minimum amount of space that would be humane and healthful. Living space available in nineteenth century London slums was estimated at 9 sq. ft., per person (less than one sq. meter). The Nazi concentration camp at Belsen had 3 sq. ft. (less than 1 sq. meter) per person.

There are numerous variations in living space depending on income, cultural preference, land availability and other factors. A major point though is that most normal people choose their own home and have control over it and that mentally retarded persons in residential facilities rely on government and others to make a determination for them.
Obviously, physical space is related to personal space. One's own bedroom is the most private and personal space we have in this world. Comparison of physical space is difficult, however I have collected some data. As shown earlier, in the United States regulations provide for a minimum of 80 sq.ft. (7.5 sq. meters) for single bedrooms and 60 sq.ft. (5.7 sq. meters) per person in multi-person bedrooms. Other collected data shows the following for single bedroom space - Sweden - 129 sq.ft. (12 sq. meters); Germany - 172 sq.ft. (16 sq. meters); Denmark - 161 sq.ft., (15 sq. meters).

The largest single room dormitory for mentally retarded which ever existed in a Minnesota State institution, was for 133 severely and profoundly retarded adult men. The space 131 x 42 feet (24 x 13 Meters) provided an overall allowance of 40 sq.ft. (3.7 sq. meters) per person, including public aisles. Day rooms and dining rooms were about equal for a total overall space per person of 80 sq.ft. (7.5 sq. meters). This state institution remodeled old buildings to provide units for 12 to 16 residents each and now meets minimum Federal requirements, however no special considerations were made for children or very difficult residents. Extra space is provided for those in wheelchairs. Remodeling at Minnesota State operated facilities has resulted in the continued use of spaces which could easily be observed and controlled by one or two staff. At the International League of Societies for Mentally Handicapped, 1978, Ulrika Thor of Sweden reported that a bedroom which has 92.5 sq.ft. (8.6 sq. meters) could not be used in a group home because it was too small.

Crawford and Thompson (1978) stated, "little systematic data on the environmental determinations of adjustment by mentally retarded persons to community settings are available."
INDIVIDUAL DIFFERENCES

N. E. Bank-Mikkelsen of Denmark and Klaus Kraling of Germany have both stated that the profoundly retarded do not need more space than other residents unless they are also physically disabled. With very adequate space and single rooms additional space may not be necessary or, if the profoundly retarded are by far the minority in a group; if neither of these is true, space must usually be larger.

Tom Mutters, Executive Director of The Association of Parents in Germany, has pointed out, "the fact that we try to find living patterns for the mentally handicapped - as similar as possible to the ordinary living patterns - must not be misinterpreted to the effect that special needs of mentally handicapped persons concerning help and support are denied." "They cannot be moved - like objects - from one place to another, like chairs, which today are placed here, tomorrow there."

NATIONAL AND CULTURAL DIFFERENCES

It appears that residential facilities for mentally retarded vary from country to country apparently due to cultural differences including the value placed on mentally retarded persons, and space preferences of normal people in the country. Observation of Scandinavian facilities shows more small private areas, fewer people at tables for eating and more space separation by use of open partitions. There also seemed to be more recognition of difference in space needs for small children compared to teenagers and adults.

Gunnar Dybwad wrote (1969) that, "If our severely and profoundly retarded residents are to improve, as we feel sure they can, they need to develop some sense of their own individuality, of belonging to a group, and of having meaningful personal possessions. Such needs are common to human beings."
Levy and McLeod (1977) studied environment in a large institution day room for severely and profoundly retarded adolescents. They concluded that, "the environment and its supportive elements will have to become more physically 'active' as compared to the physically 'passive' environments which are now generally in existence." The hypothesis of their study was that the large number of activity options provided by the enriched environment would elicit more appropriate and productive behaviors from institutionalized children.

In the book, "A Common Sense Approach to Community Living Arrangements for the Mentally Retarded" John W. Fanning (1975) lists guidelines for community group homes. One such guideline says, "Residents will be able to lock the bathroom door when they so desire, if they do not stay in the room an excessive length of time," and "residents may take naps so long as this doesn't interfere with the planned activities." This further emphasizes that we must plan for individual privacy and opportunities to be alone. General rules such as above are dehumanizing and indicate a more rigid environment.

Edward T. Hall in his book, "The Hidden Dimension" said, "The chances of forcing whole populations into molds that do not fit are very great indeed. Within the United States urban renewal; and the many crimes against humanity that are committed in it's name, usually demonstrate total ignorance of how to create congenial environments for the diverse population that are pouring into our cities." "They may find themselves forced into behavior, relationships, or emotional outlets that are overly stressful."

**PLANNING FOR PEOPLE**

When we plan residential facilities we need to provide many varieties of space so that people can be as involved or as isolated as they wish. (The English pubs recognize this and many have
"snuggeries" which are small, cozy, and quiet, in contrast to more public areas.) Restaurants in particular plan their space to consider relationships of people and the environment. There is usually a variety of spaces so patrons can be semi-secluded, carry on private conversations, and still enjoy the variety of people and things around them.

Seldom do publicly planned residential facilities have small, intimate nooks into which individuals can withdraw. We try to move "isolated" residents toward active participation. If you are retarded you haven't a right to be quiet, isolated, and alone for long. Many studies regarding space are related to creating more activity; few focus on quiet or sedate behavior.

There is a great deal written about group homes, and their location, and spacing in the community. M.M. and G.B. Seltzer (1977) recognized the need for some physical differences within group homes. "It would be necessary to create special prosthetic settings with features designed to meet the special needs of retarded persons."

The concept of small, home-like facilities seems entirely valid; however, more attention needs to be given to individual differences and preferences in regard to living space.

Dr. Karl Grunewald (1972) wrote, "In practice we must always view mental retardation in relation to a person's environment. This means that the environment we create for the individual must always be evaluated according to the same principles and with the same accuracy we use in evaluating retardation itself." "Behavior is formed in a constant process of interaction between the individual and his environment."
SOME PREVIOUS STUDIES

At the fourth IASSMD conference in Washington, D.C. (1976) Tremonti and Reingruber presented a study entitled "Comparison of Large and Small Living Units for the Mentally Retarded." They recognized that much more study is needed and concluded "that the paramount factor in achieving maximal humanization, normalization, and development of the mentally retarded is the programmatic design and staff size and commitment, not the structure of buildings."

Richard H. Wills in his book, "The Institutionalized Severely Retarded" (1973) a study of activity and interaction described a building at a California institution. I have chosen to use this quote, not because it represents trends today but because it describes a building and seems to disregard individual or personal needs.

"The walls of Oak Hall are lined with large windows which open upon the grounds between wards. In the day room several landscapes hang on the walls and four pictures of Batman and his archenemies have been placed above the T.V. set. In one corner of the room is a large artificial fireplace which appears quite authentic. Vases with plastic flowers are kept on the mantel or placed on the dining tables. Tables, chairs, and floor sections are different colors, which serve to break up the day room into distinct areas . . . The third and last major section of the ward is the dormitory. Here beds are lined up side by side along both walls, between the wall and each bed is a cabinet for personal possessions. There are several privately owned T.V.'s,
a door at the rear of the dormitory opens into a long perpendicular hallway which connects Oak Hall to a series of other wards."

Contrast this description of human living space with the following excerpts from the Tower Poems of William Butler Yeats.

An ancient bridge, and a more ancient tower,
A farmhouse that is sheltered by its wall
An acre of stoney ground
Where the symbolic rose can break in flower,
A winding stair, a chamber arched with stone,
A grey stone fireplace with an open hearth,
A candle and a written page.

The book, Common Sense Approach, sets forth guidelines for establishing group homes. Almost every imaginable consideration is mentioned. The list of house furnishings even includes, one spoon rest, and three ashtrays. There is however, no mention of personal space needs. It does say that there should be no more than two persons in a bedroom except that the "live in" staff shall have an apartment including living room, bedroom, and private toilet. We seem to recognize the need for colorful furnishings, pictures and wall hangings but not a need to design space according to individual needs.

If we intend to have community homes for mentally retarded persons we then must recognize in planning, how a person retarded or normal relates to his home, those around him and feelings about these.

Antoine deSaint-Exupery in his wartime classic, "Flight to Arras," does, I believe, relate deep feelings about personal space. He wrote, "Thus this body, which during any daylight hour might reveal itself my enemy and do me ill, might transform itself into a
generator of whimperings, was still my obedient and comradely friend as it snuggled under the eiderdown in it's demi-slumber, murmuring to my consciousness no more than its gratification and its purring bliss."

UNDERSTANDING

Robert Sommer in his book, "Personal Space," the behavioral basis of design, writes, "Another fertile field for Utopian planning is the design of special facilities for the blind, crippled or the insane." He says further, "there are excellent studies of the effective turning radius for a wheelchair, the optimal incline of a stairway, or the best sorts of railings for showers and baths that have proven invaluable in designing facilities for the handicapped . . . Sommer asks, "Has an attempt been made to design these institutions from the standpoint of the patients own needs, with respect for his way of life, his craving for privacy and refuge?" He says, "in no sense can a therapeutic milieu be equated with one designed to give happiness and pleasure to the (residents) inmates. Therapy implies society's goals and interests rather than the patients."

We must put forth considerable effort to listen and understand what the person who is mentally retarded wants and is saying, unless we do we will be unable to provide the right kind of warm, friendly living places.

This poem, written by a person in an institution for mentally ill conveys some of that inner feeling of need I am referring to:

I am voiceless;
no one stands
to speak for
me.

I am voiceless;
no one stands
to speak for
me.
I am alone.
Listen,
Use your eyes to hear.
I call upon you, friend;
bear witness to my presence.

Space considerations go beyond building spaces. Because the more severely retarded people have limited independence they must be helped also to experience wide open, unrestricted spaces. One aid toward expanding such experiences is through the use of wheeled vehicles, such as dual passenger bicycles and meaningful automobile travel. Think of your own enjoyment and feeling of freedom when you observe a wide valley, or roam freely in the woods or mountains. These experiences need to be available to mentally retarded people also.

Freedman (1975) said, "Research on personal space is important from two points of view. First, it demonstrates that people do respond to variations in space around them and have rules about what is appropriate. This makes it even more likely that population density affects people's behavior in some way. Second, it shows that there are no absolutes involving this space. There is no "right" distance, there is no automatic negative or aggressive response when someone is close. Instead, the appropriate distance depends almost entirely on such factors as the relationship among people, the setting, and the personal characteristics of these people."
"Personal and social space, according to Hall, (1976), are related to stress and behavior and become more important as individual behaviors become more bizarre."

We can measure whether a man is able to reach something, but we must apply an entirely different set of standards to judge the validity of an individual's feelings of being cramped.

SUMMARY

I have only been able to briefly address a few major points. Unquestionably much more study in the area of proxemics and mental retardation is needed, even though it has been studied generally by anthropologists, sociologists, endocrinologists, psychologists, architects, engineers, ethologists, artists, and poets.

It is not enough to assume that all mentally retarded people can live and function well in the so called normal setting.

Hall says, "proxemic patterns point up in sharp contrast some of the basic differences between people - differences which can be ignored only at great risk."
REFERENCES


