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Ward Development Project

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# 11 Ward Development Project

## **Background to Ward Development Project**

Shenley Hospital was a large psychiatric hospital on the outskirts of North London. It was undergoing considerable modification as a result of changes in medical practice. As part of these changes attention was turned to providing better facilities for that part of the patient population that it was assumed would continue to need continuous in-patient care, especially its psychogeriatric population.

It had a large psychogeriatric population housed in wards that had been designed for quite other purposes early in the century. The clinical psychologists who worked there recognised the problems of these wards and commissioned me to carry out studies that would lead to design proposals. It happened to be a year when we only had four students on the MSc in Environmental Psychology at Surrey so the project became the focus for their year's study.

As a result of the various projects we were able to make design proposals for how the wards could be redesigned, perhaps the first and only time that psychologists have produced detailed design recommendations without any architectural intervention. The recommendations, of course, also included proposals on the management of the ward, which is virtually unknown in strictly design schemes.

However, we did need to convert these ideas into more detailed plans so that the management team could take them forward for costing and the like. My long standing friend and colleague Arie Peled contributed his architectural skills by interpreting our proposals as plans and drawings, also drawing upon government planning guidelines so that the proposals were within the planning regulations.

The resulting designs were very well received by the hospital management and the staff who saw a number of advantages to the schemes that we had not appreciated. We were thus lead to believe that funding would be forthcoming to redesign the wards according to our proposals. However, we heard nothing for many, many months. Then one day I read in a newspaper that the whole site of Shenley Hospital had been sold to an orthodox Jewish community to convert into housing and other community facilities.

## **Summary**

A five stage programme is outlined. This has the objective of developing and improving the long-stay psychogeriatric wards at Shenley Hospital.

*A: Indicative stage*

In the first stage four interrelated studies were carried out focusing on ward FA3, drawing upon all personnel who had any contact with the ward.

These studies gave rise to the following conclusions:

1. All staff would like to create a ward that provides the possibility of greater enhancement of patients' activities and experiences.
2. Differences between sub-groups of patients in their demands and dependency could be identified with a high level of staff consensus.
3. The activities in which staff and patients participated had a definite pattern to them which carried design implications, especially in relation to the need for semi-private as well as 'public' spaces.
4. A ward layout that recognised the value of a radial arrangement with clearly central and peripheral spaces would respond to many of the different perspectives staff had on the desired activities on the ward.

*B: Preliminary proposals*

In the second stage the results of the first stage were used to generate preliminary design/programme proposals.

In essence the preliminary proposals are as follows:

1. The conversion of the main entrance to be directly accessible from the outside via the existing roofed-over verandah.
2. The opening up of the nurses' office to provide a nurses' station.
3. The creation of three/four separate sleeping areas, each with an adjacent small sitting area.
4. The creation of a definite group activities area near the nurses' station, and of a separate dining area.

*Subsequent Stages.* In order to put these proposals into action a further three stages are proposed.

*C: A planning stage*

Through further discussions with staff and the collecting of technical information the details needed to produce specific programmes and designs will be obtained.

*D: Design stage*

Development of detailed design recommendations.

*E: Implementation stage*

Carrying out the necessary training and building alterations to set the programme in motion.

**Research procedures and summary results**

Researchers spent a number of days on the ward, throughout a full 36 hour period. During this time they helped with ward tasks and interviewed 40 members of staff associated with the wards. These interviews were structured around an agenda of topics but deliberately allowed staff to raise any issues about the activities on the ward, its layout and use.

In the light of these interviews and the general models of therapeutic environments put forward by Canter and Canter (1979), a structured questionnaire was produced asking about staff objectives for the ward. This was completed by 25 staff.

The interviews with staff and observations of the ward produced various perspectives on the ward. In general staff felt that the ward was unhomely, and depressing. Most staff mentioned a lack of additional activities for patients such as more occupational therapy, an increase of visitors, and more trips. A lack of patient privacy was felt to be very evident. The problem of heavy dependence was also mentioned. Observations supported these statements.

The questionnaire provided a list of care-giving policy concepts that staff felt were of utmost importance for the elderly mentally ill. Issues such as self-respect of the patient and encouraging independence when eating, dressing, walking and going to the toilet were major outcomes. Also included was the provision of aids to help mobility of patients. The overall impression was of providing care which was as normal as possible in a homelike environment with as few institutional features as possible.

A variation of Canter et al's (1985) 'Multiple Sorting Task' was used to examine the consensus held by staff about their patients. The name of each patient known to staff on the ward was written on a separate card. The staff working on the ward and in close contact with the ward were then asked to sort these cards as a way of indicating any important differences between the patients. Fifteen staff carried out these sortings. The combined results of these sortings were analysed and are presented in a Summary MDS representation in Appendix I.

The patient multiple sorting task showed that there were a number of levels of competence amongst patients on the ward. There was an apparent continuum of dependence, running in parallel with stage of dementia in the patient. These results posed the question of segregation or integration of patients of different functioning levels.

In order to understand the conceptualisation of activities on the ward a sorting task of activities was carried out with 15 staff. These were subjected to the same

form of analysis as the patient sorting task. The results of that statistical analysis are summarised in Appendix II.

The activity sortings showed a division of activities physically between the front, more public area of the ward, and the back, private regions. There were also clear divisions between social and non-social activities, with social activities seen as rare occasions from observations and interview results. Activities were also clearly separated in staff conceptions as to medical/hygienic activities and enhancing/normal activities. This latter group of activities also fell into the category of rare occurrences.

The staff view on the appropriate spatial relationships between activities on the ward was explored using a location task. The Location exercises were a variation of the Location Task developed by Professor Arie Peled of the Technion, Haifa (Peled, 1976). For this staff were given paper markers with activities on them. Twenty-one staff carried out this exercise and their layouts were combined after content analysis. The summary of these designs, in an overall schematic form, is given in Appendix III.

The design games produced by staff tended to be radial with a centre for either a nursing station, toilet/bathing area, eating area, or more patient centred occupational therapy area. Although not all designs created were radial in shape, the radial design is the best fit to the shape and design of the existing ward. Most designs separated sleeping and night activities from day activities by placing the former at the back of their design and the latter towards the front or main entrance to the ward. Designs that would best improve ward atmosphere and promote a home-like environment would lean towards designs that were normal/enhancement in type.

### **Organisational changes proposed**

The major change suggested by the results of the data would be the commencement of training programmes for the purpose of increasing patient independence. Learning to feed oneself, dress oneself and go to the toilet unaided would be the aim of such programmes. Programmes would be carried out by staff working on the ward and supported by those connected more remotely. These changes would not involve costly procedures, but a reorganisation of care giving procedure.

In the past, Kuller and Mattsson (1984) found that elderly who were previously spoon fed, after their alterations to meantime organisation, were now feeding themselves. Changing the organisation of the present meantime, as Kuller and Mattsson did, might be a worthwhile alteration to be considered.

This increase in patient independence would not only serve to increase patient self confidence and self esteem, but would also make the ward atmosphere less institutional. Initially the work load of staff may be increased, due to the constant effort required to train individuals. However, thereafter work load to staff would be decreased, due to the fact that patients would no longer need as much attention and help with everyday functioning. With patients having an increased level of

competence, more response would ensue, also promoting a livelier interactive ward.

Thus while providing training to increase patient independence, existing dependence promoting procedures should be gradually removed, such as using mobile commodes, which make less work for staff, but decrease patient self respect, provide little privacy and encourage dependence.

More activities were suggested for patients. This could be achieved through an increase in the amount of occupational therapy provided. Staff on the ward could elicit participation from patients by, for example, playing music so that even if occupational therapists were not available, patients could still benefit. The use of volunteers could be helpful in this instance, not only for helping staff, but providing the extra stimulation of a visitor to talk to.

One difference of perspective found between departments within the hospital was the amount of stimulation possible in an elderly senile population. Those not working daily on the ward tended to believe that the elderly should live as normally as possible, in pleasant surroundings. They did not think that much response from the patients was possible. If this perspective were changed, more support would be available from outside workers such as social workers and hospital administrators.

The provision of organisational changes away from institutional procedures of care would move the ward away from the current 'custodial' model of care. These programmes would in no way alter the physical environment, and thus would not be costly alterations. As has been shown in the past by Lawton (1980), and Woods and Britton (1985), the senile elderly will respond to programmes designed to increase self esteem and decrease dependence.

### **Segregation or integration?**

Lawton (1980) and Lipman and Slater (1979), both leading researchers with the elderly, have differing opinions as to segregation and integration of patients. In the interviews carried out some senior staff were in favour of having patients of different levels of competence together on one ward. However, nurses working on the ward felt that those patients with very low levels of competence brought the other patients down to their level. Occupational therapists, although generally in favour of the segregation of different levels, thought that those more demented did benefit when present in the same room with other patients having an occupational therapy session. These views, taken together with the other data collected, suggest the value of a ward layout and programme that combines some of the advantage of an integrated ward whilst avoiding the disadvantages.

### **Physical alteration to the ward**

In accordance with the results of the data analysis a number of physical changes to

the ward environment would be of value.

In terms of providing a more home-like ward, some features could be added. These would include homely furniture, extra furnishings, such as photographs and pictures. Painting the walls uninstitutional colours like pale blue, yellow or pink may improve the ward. The population under consideration must be remembered. Thus, if plants are suggested, perhaps hanging baskets would be more appropriate so that patients could not eat or ruin them. Old-fashioned furniture should be considered not only because it is fairly easy and cheap to come by, but because of the proven beneficial effect it has had on elderly mentally ill (Kuller and Mattsson, 1984),

The provision of prosthetic aids for the ward is a very important alteration, and hand rails around the ward and in the toilet/bathing area would greatly increase mobility in patients, as well as the provision of wheelchairs and walkers for those more frail, and special orthopaedic chairs for those for whom walking is impossible. It is not thought that these aids would encourage dependence. The elderly may be one of the few sections of the population where there is little hope of learning to walk again if chair bound due to old age. The aids provided would only help to increase the independence of patients, in that assistance now needed to move about would be greatly decreased. However, proper administration of wheelchairs and other aids is necessary, so that those able to walk unaided are not encouraged or allowed to use aids solely to ease staff workloads.

From the patient sortings it was seen that the patients varied along a continuum of dependence and competence. A ward which houses a mixed population should itself be varied. Senile dementia is a condition which can produce varied levels of competence within the same patient, often within the same day; therefore an environment which will meet the needs of a changing population is important. Even if one level of competence or type of patients is to be provided for on a ward, this level will vary within itself due to the nature of their disability. Thus an adaptive environment would be of value.

The creation of an adaptive, flexible ward would need to allow for different types of setting for patients with differing degrees of dementia. It would also need to take account of low staffing levels. This will require some combination of the existing, overall general ward with smaller groupings that will give each group of patients an environment with a distinct emphasis. In effect, this leads to a proposal of smaller within wards.

Each of these 'pods' could have a sleeping area and a semi-public sitting area. In some cases there could also be another area specifically set-up for some other more focused group activities. Access between the different areas would need to be kept open and they would all require ready access to the toilet facilities. It would be important to aid reality orientation by making each of the pods as distinct as possible within the overall design and layout.

In the toilet/bathing area of the ward it was felt by many staff that this was an underheated area, and that very little patient privacy was afforded. Extra features such as a lift to aid patients getting in and out of the bath was suggested. Further privacy could be achieved by the addition of doors on toilet stalls and the

installation of more partitions.

To combat one of the major problems of the elderly, confusion, various aids to help orientation can be used. As suggested by Lawton (1980) having different rooms painted different colours can help. Providing large coloured simple maps of the ward can also help patients to find out where they are in relation to other parts of the ward. The use of a personal name to denote one's bed/locker may help in a room full of identical beds. Reality boards with the date, season, and weather on them have been shown to be useful. This idea could be developed to indicate, for instance, the day's TV programmes or other matters of interest to the patients. In the ward under study, there was one in each of the two day rooms. However, they were placed high up on the wall, and patients did not take any notice of them. Other useful features for orientation are clocks, photographs from the war era, and other wall hangings reminiscent of the previous years of the elderly.

### **Proposed radial design of the ward**

Most of the design games produced a radial design of some sort. This is interesting in the light of the existing ward which can be thought of as radial-like in layout. One of the first, and possibly most obvious, alterations in terms of design would be to open up the area currently used by nursing staff as an office. At the moment there is only visibility in one direction from the doorway of the office. This is in the direction of one of the two sleeping areas. If the office were to have windows installed, or walls removed, then the two day areas as well as the other sleeping area would be in clear view.

At the moment, the nurses' office is in the centre area, sharing this centrality with the toilet/bathing area in terms of distance from the rest of the ward. If the theme of care provided would be changed from a custodial/observation/cleaning policy to a more social and enhancing one, then clearly the centre of the ward should be shifted. This could be achieved by the following suggestions.

The main entrance to the ward is currently down a hallway, past the kitchen area, through the double handled door and into the ward. To a patient watching a member of staff leave the ward, it is as though the staff member leaves to another part of the hospital, because the outside world is not in evidence through the door. One enters through one of the day spaces. There is a fire exit at the opposite side of the ward, close to the nurses' office, entering the ward from the outside verandah. If this second entrance were made the main one, the routes established for traffic on the ward could be changed. This would give patients a different direction to watch, and a direct feeling of contact with the outside world. For when the door is opened, there is no hallway, but a direct interface with the elements, protected by the verandah. This would also encourage patients to look outside through adjoining windows near the door and perhaps help to maintain contact with the hospital outside the ward.

The change of main entrance would need to be examined carefully in relation to



the other entrances that are used at present, both for staff car parking and for the provision of meals. In one sense, the suggestion of changing the entrance is to give a clear 'front-entrance' and 'back entrance' to the ward. Visitors and others not providing basic services to the ward would then enter into a type of open foyer, close to a nurses' station, with activities, possibly dispersed around the ward, but visible from that entrance. This would be much more welcoming than the current series of doors and the sudden entrance into a patient group.

One of the major criticisms of the ward was its institutional atmosphere and lack of homeliness. This could be altered by repainting the walls and by lowering the ceiling height. The present tall ceilings tend to give the ward a gymnasium feeling, and add to patient confusion. In addition, the lighting levels could be changed in a manner similar to that proposed by Lawton (1980), so that good lighting would be available, yet it could be adjusted for various reasons.

To make the ward literally a brighter place, the south facing position of the ward could be used to the fullest. There is already a verandah, which, if covered by plastic or glass, could be a bright extension to the ward. If covered in, it could be used all-year-round. Outside verandahs were often suggested in design games, as were gardens outside. At present the hospital does have well kept gardens; however, often patients cannot get close enough to the windows to see out of them. Often, too, from a sitting position, it is not possible to see much out of the windows, which although large are not low enough for a sitting population.

## **Conclusion**

If these relatively simple changes are introduced, then the environment will become a much healthier one in all respects. Staff approve the proposed alterations which would include increased patients' self esteem, improvements in ward atmosphere, and redecoration, provided that staff are kept well informed and are felt to have had a major part in the formation of changes.

## **Technical appendices**

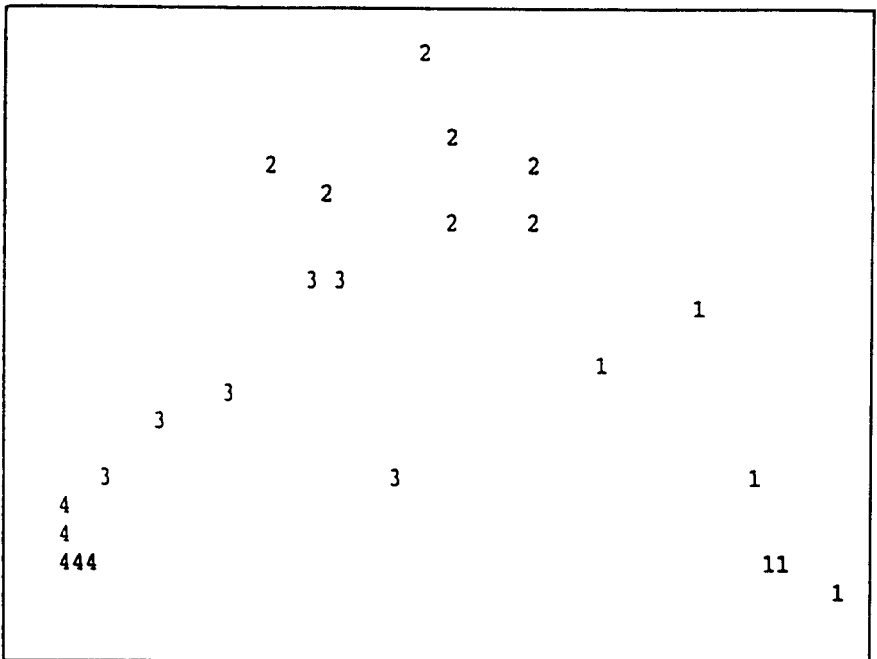
- I Summary analysis of sorting of patients
- II Summary analysis of sorting of activities
- III Schematic summary of location tasks
- IV Schematic design proposal
- V Bibliography

**Appendix I: Instructions for the multiple sorting task with patients' names**

Each of these cards shows the name of a patient presently on this ward. Do you recognise all these names? I would like you to think about your feelings about these people in this task.

Can you sort these cards into different piles so that all the cards in each pile have something in common, but are different from the other piles? Think about how these people are similar and different from each other. You may have as many or as few groups as you like; however, usually people find between five and seven groups is adequate. You may sort the cards as many times as you like.

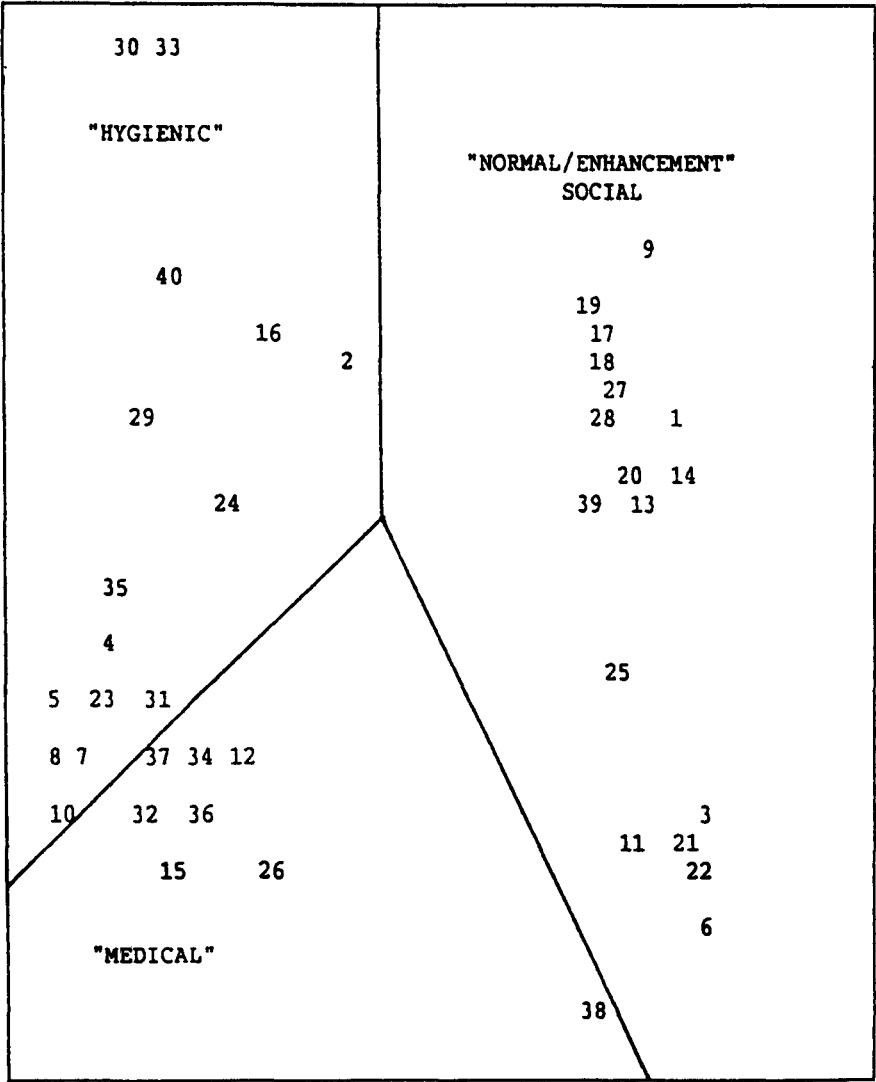
The participant was presented with the 24 cards randomly shuffled. After groups were formed the participant was asked why cards were put together in the same pile, and how the other piles were different. Labels for each pile were elicited from the sorter. Notes were taken as the participant sorted the cards, with encouragement given to the participant 'thinking aloud'.



MSA of patients based upon staff categorisations.

- 4, highly dependent/bedridden - demented;
- 3, very dependent/chair bound - demented;
- 2, fairly dependent/mobile sometimes - dementing;
- 1, fairly dependent/more mobile - sometimes lucid.

**Appendix II: The same instructions as given in Appendix I were used with 40 activities instead of patients' names to be sorted**



MSA of staff conceptions of activities occurring on the ward.

**List of 40 activities used in activity sorting**

1. Sleeping in chairs
2. Sleeping in bed
3. O.T on ward
4. Making Beds
5. Bathing
6. Physiotherapy on ward
7. Cleaning patients
8. Toileting
9. Visits from relatives
10. Cleaning patients after meals
11. Visits from chaplain
12. Doctor visits
13. Listening to records
14. Reading/looking at papers
15. Patient tea-time
16. Staff tea-break
17. Sitting alone
18. Watching T.V
19. Talking to other patients
20. Sitting in a group
21. O.T trips and outings
22. Visits to O.T centre
23. Feeding by spoon
24. Eating
25. Parties for patients
26. Changing bandages/dressings
27. Patients looking out of windows
28. Patients walking around
29. Preparing drinks for patients
30. Cleaning dishes after meals
31. Staff serving food
32. Patient count
33. Cleaning floors
34. Patient observation
35. Staff changeover
36. Medicine round
37. Patient observation and checking during day
38. Admission of new patients
39. Patients sitting outside
40. Laundry duties

### **Appendix III:**

This list of 23 activity/place names was compiled from activities observed to occur on the ward, and from interviews with staff both on and connected to the ward. Other non-activity/place areas were added from the results of the sorting tasks. These activity/place names were then hand written in capital letters across a diamond shaped (square) white paper disk. The activity/place 'markers' were deliberately designed to appear 'home-made', so as not to seem too professional and inhibit participants. The squares measured approximately 5.0 cm by 5.0 cm.

A place for patients to sit quietly

A place for Chaplain visits

A place for admission of new patients

A place for patient examination

A place for storage

A place for medicine storage

A place for staff breaks

A place for doctor visits

A place for preparing drinks/food for patients

A place for O.T activities

A place for patients eating

A place for patients sitting in a group

A place for visitors

A place for watching T.V

A place for patients to listen to records

A place for sleeping

A place for laundry

A place for cleaning dishes

Patients sitting outside

Nurses' office

Staff changing room

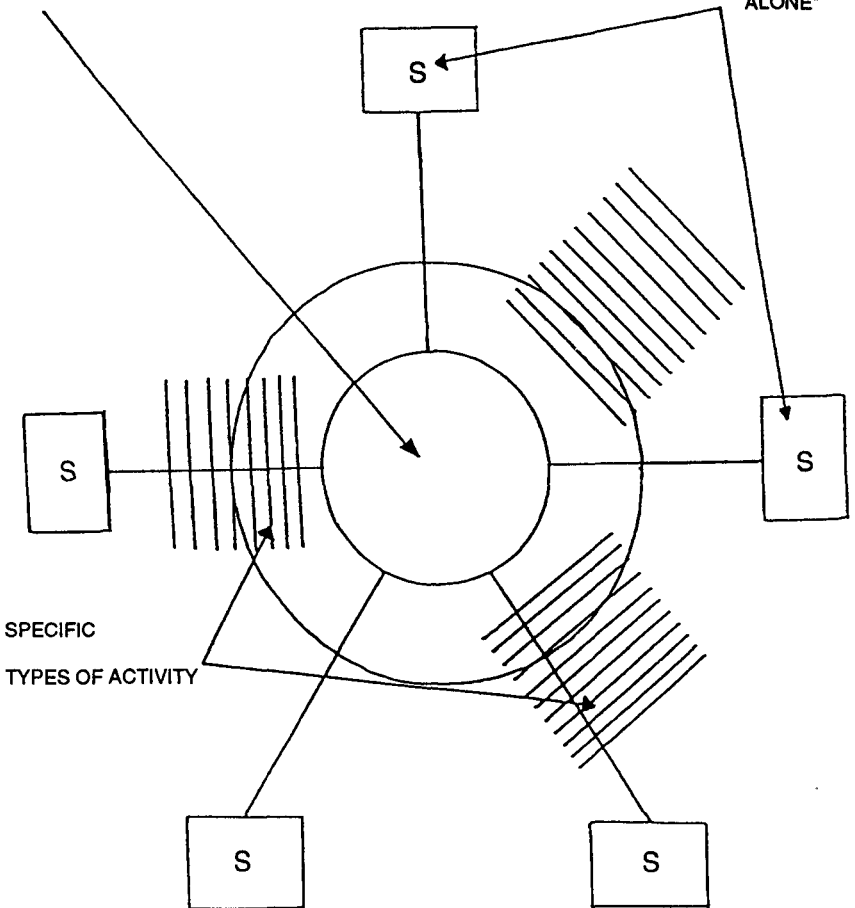
Bathing

Toileting

CENTRE: FUNCTIONAL - TOILET-BATH/NURSES BASE  
PATIENT/COMMUNAL AREA

SLEEPING/PATIENTS

"ALONE"



SCHEMATIC REPRESENTATION OF SPATIAL RELATIONSHIPS DESIRED

#### **Appendix IV: Instructions for the design game**

The participant was presented with a large circle drawn in black on a large white piece of paper, labelled 'front' at one side. The participant was told that the circle represented the 'inside' of the ward and that outside of the circle represented 'outside' the ward, or the near vicinity. Then the markers were shown, and any activity/place areas not understood were explained. The participant was then instructed to arrange the markers both inside and outside of the circle so as to represent their ideal long-stay ward for elderly senile-dementia patients.

Active encouragement was given to the use of imagination and fantasy. Any additional activities could be added by the participant, and similarly any of those provided not used. Thus doubles of activity/places could occur, i.e., two bathing places. Overlapping of activity/place markers was allowed, although the participant was encouraged to use the whole space available.

After rearrangements were completed and the participant was satisfied with the design produced, marks were made on the paper where the centre of the activity/place was according to the participant-designer, and the labels from the markers transferred to the design board. Then the participant was asked to section areas if possible into rooms, and then label these. Then connections between these such as doors, corridors, and screens were asked to be drawn onto the board. Any additional features were then added if the participant felt it necessary, such as a fireplace. Windows and main entrance/s to the ward were also elicited from the participant.

Throughout the exercise it was stressed that it was a design game and that there was no right or wrong way of doing the task. It was also stressed that the designer remove themselves from the ward being studied so as to design an ideal ward.

At the end the participant was asked to explain the design created, while notes were taken. The name and profession of the participant were also recorded.

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