

Acute mental health care according to recent mental health legislation. Part III. Structuring space for acute mental health care

A Janse van Rensburg¹, ABR Janse van Rensburg²

¹Department of Architecture, University of the Witwatersrand, Johannesburg, South Africa

²Division of Psychiatry, University of the Witwatersrand, Johannesburg, South Africa

Abstract

Objective: This is the third of three reports on the follow-up review of mental health care at Helen Joseph Hospital (HJH). The study reviewed existing South African standards for mental health care facilities. Architectural principles and implications for the use of space were deduced from recent legislation. Objectives were to evaluate the use of space in the existing physical facilities, to identify appropriate architectural solutions considering identified human rights requirements and to provide provisional cost estimates to align the unit towards its designated functions. **Method:** Personal interviews were conducted. An on-site assessment and survey was made of existing and potential new spaces. **Results:** Spatial requirements for implementing the Mental Health Act, No. 17 of 2002 (MHCA) were explored. Principles for spatial design of acute facilities include that: - spaces should communicate clear individual identity; - space should be segregated into zones according to user functionality and privacy; - communal leisure spaces should open into safe contained outdoor spaces; - circulation routes should preferably be circular; - sufficient visual connection should exist between circulation space and group activities; and - open lines of sight should be provided to all access points. The potential options for extension included: - an extensive unused single storey structural shell for a potential office wing on the same floor; - a huge vacant double volume space which could be accessed across the existing flat roof for potential occupational therapy activities; and - the existing roof area could be altered and secured to become an adequate outside leisure and garden area. A proposed concept design in two phases – based on these principles - was submitted to hospital and provincial management. **Conclusion:** To implement the MHCA without violating the human rights of mental health care users at HJH will require specific adjustment and extension of the current use of space at HJH.

Key words: Architecture; Hospitals; Mental health services; Human rights

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Introduction

To assess the use of space requires the review of activities performed and functions executed. The assessment of the use and structuring of space for acute mental health care necessitates the review of all operational areas and related activities incorporated in the care program. At the same time appropriate norms and standards need to be considered to

quantitatively and qualitatively align a service unit with its designated purpose, its place in the referral network and enable its expected functional objectives and outcomes. This article is the third of three that reports on a review of a local acute mental health care unit in a general specialist hospital in Johannesburg, South Africa.

In the first two reports^{1,2} it was established that major changes in the extent and scope of services were expected from the mental health care unit at Helen Joseph Hospital (HJH), while no additional resources were made available to enable it. The unit was designated in 2005 as a 72-hour psychiatric and mental health assessment unit for adults

Correspondence

Dr. B van Rensburg
PO Box 1247, Pinegowrie, 2123, South Africa
email: bernardj@gpg.gov.za

according to the Mental Health Act, No. 17 of 2002 (MHCA).³ A review of the legislation currently regulating mental health care in South Africa is discussed in a separate report.⁴ The HJH unit operates as a specialist, academic psychiatric unit in a general regional hospital, situated in the urban setting of the city of Johannesburg, South Africa. The hospital is a 480-bed facility and one of three general referral hospitals with an acute psychiatric unit on the local specialist service and teaching circuit. The in-patient mental health care unit at HJH is a mixed (male and female), 30-bed, acute, adult assessment unit in a general regional referral hospital setting with an average length of stay (LOS) of about 3 weeks. The operational areas of the mental health care program at HJH consist of service delivery, teaching, and research. Activities within each area include inpatient care, out-patient care and consultation/liaison, under- and postgraduate teaching and self initiated and contract research. The main service objective of the unit is to provide efficient and cost effective acute care, treatment and rehabilitation as a 72-hour assessment unit in a "lesser restrictive environment" compared to a psychiatric hospital. This is generally translated to mean the completion of users' assessment as soon as possible and an attempt to optimize their initial stabilization in the short term, often under the pressure of a high turnover of users in need of routine acute admission and treatment. There is currently no delineation of the catchment area or clarity on the size and morbidity profile of the population that HJH as a regional hospital is supposed to serve. Users are admitted from all over the city, referred from local psychiatric clinics, from private practitioners when medical aid benefits of users have been exhausted and also by direct and self referral of users, often brought to the hospital's casualty department as emergency cases by the South African Police Services. At completion of the assessment and initial stabilization of these acute users, the unit is then responsible for arranging further management and transfer to other psychiatric hospitals in the area such as Tara, the H. Moross Centre and Sterkfontein psychiatric hospital, or for the placement of users in need of longer-term care and accommodation (e.g. non- governmental organizations, contracted care facilities and old age homes). The unit is challenged with the continuous readmission of the same users, commonly known as the "revolving door phenomenon" resulting from the fragmentation of regional community psychiatry services and the consequent discontinuity of care and treatment of users after discharge from acute units.

The mental health care program at HJH had to be adjusted under the new legislation to accommodate the differentiated but integrated care of three different legal categories of users: voluntary, assisted and non-voluntary, for male and female users, in one confined area. While rights of voluntary users for example to unrestricted movement need to be protected, at the same time users in the latter two categories often have to be managed in a more secure and secluded environment, as their capacity to make informed decisions about their own mental health care has been compromised. Involuntary users often even have to be treated against their will when refusing treatment. The challenge that this situation posed structurally was one of the main motivations necessitating the review of the existing HJH

facilities' structure and use of space. At the time of the review, 16 beds were allocated to voluntary users and 14 for non-voluntary (assisted and involuntary),

Although the MHCA has been in operation since December 2004, a number of hospitals in Gauteng Province - including HJH - are still operating as 72-hour assessment units offering an extended multi-tiered range of services, without any additional resources or any physical alterations to existing structures to make this possible. In addition, the provincial health department identified an objective to extend existing acute units' capacity to at least 40 beds each.⁵ This introduced the other main motivation to review the possible restructuring of space at HJH in order to accommodate 10 additional acute beds. The functionality of both mental health care users and facilities at HJH had to be assessed in order to align services with the principles of the MHCA. During 2007, a small opportunity arose to do some limited refurbishing of the unit with the allocation of a R50 000 "Khanyisa"¹ award and a Plascon paint donation. This generated enthusiasm at the time and warranted the initial assessment of options and provisional proposals with a possible expansion of the unit in mind (*An annual service excellence awards competition organized by Gauteng Provincial Government*).

The objectives of this study were therefore to: - describe and evaluate the use of space in the existing acute mental health care physical facilities at HJH following the implementation of the MHCA; - identify appropriate architectural solutions; and - provide provisional capital cost estimates to align the unit towards its designated functions while considering certain identified human rights requirements.

Method

To indicate how the methods for this review relate to those of Parts I and II^{1,2}, the original methods set for the 4-year review of mental health care at HJH are briefly repeated here. The overall method was set out in four steps: Step 1 - Program of care; Step 2 - Clinical profile; Step 3 - Running cost; and Step 4: Design and capital cost. Methods for this report on structuring space for mental health care included:

- Step 1(a) - "to review and interpret current hospital, provincial and national policy, as well as appropriate applicable norms and standards"; and
- Step 4(g): - "to calculate projected cost while applying appropriate, reasonable norms and standards to reconstruct and refurbish physical facilities according to activities expected from a designated 72-hour assessment unit of this nature."

Step 1 (a) was also part of the methods for the first report⁴, but it addressed staff norms and standards for the unit in particular. This investigation reviewed particular aspects of existing South African norms and standards proposed for mental health care facilities.

To execute Step 4(g), personal interviews were conducted with professionals from different disciplines at the HJH mental health care unit, including medical, nursing, occupational therapy (OT) and psychology. On-site assessments and surveys were made of the existing facility and potential new spaces at Helen Joseph Hospital. The spatial requirements for

implementing the MHCA were explored and the shortcomings of the existing facility were assessed. Qualitative descriptions were made of these findings. Design solutions were developed and the projected capital cost of the proposed structural adjustments was calculated.

Projected cost was calculated in a number of steps: (1) Design work stages 1-2 as set out by the SA Institute of Architects were followed to develop a concept design which - (a) meets the requirements of mental health care standards and legislation; (b) meets the design brief by the mental health professionals involved in the care unit at Helen Joseph Hospital and (c) also utilizes other spaces that may be potentially available in the hospital in an economical, rationalized way.⁶ (2) Existing spaces were differentiated into zones requiring different types of structural intervention (e.g. alterations or new structure, etc). A reasonable estimate of cost per square meter was allocated to these zones and total costs were calculated accordingly. This has the advantage that the cost per m² can be adjusted according to the latest building price indexes and that the estimated cost can be easily recalculated if the concept design is revised. Finally a comparison was made between the cost to refurbish the existing facility and the cost of constructing an entire new unit. (3) A 10% professional fee was added to this estimated tender price to give the estimated total building cost.

Results

Policy, norms and standards for facilities

The national health department's manual on the setting of norms for severe psychiatric conditions (SPC)⁷, provides only quantitative norms for acute facilities only in terms of required numbers of beds and staffing. An internal report on norms for acute mental health care wards for Gauteng Province started to address qualitative standards for the type of spaces that should be provided in acute units, but no official guidelines have been published yet on e.g. how the conflicting requirements for different categories of users should be addressed in the space of a single 72-hour assessment unit.⁸

According to Thyse⁸: "The space requirement for an acute mental ward differs greatly from those requirements for other medical care facilities within the hospital context. The floor area per patient ratio will be far larger than other specialized areas in the hospital. This unit functions as a complete unit on its own and the facilities provided will accommodate all the activities that a normal person would take part in during daily routines. Enough space should be provided to allow users to walk around freely and to have access to inside as well as outside recreation spaces. International standards refer to 'freedom of choice of activity within the acute ward' – this is stated as a basic human right. The design of the unit and its internal environment should promote the concept of healing. Shortly said, the users should be able to actively take part in all normal activities as if they were at home."

Describing qualitative standards for mental health care services in South Africa, Muller and Flisher^{9,10} listed certain core standards to guarantee human rights:

- 2.1.3. "The fundamental rights of people with severe psychiatric conditions are identical to other citizens"; this includes "(j)" the right to protection from psychological

and physical abuse; and

- 2.1.4. "Specific care is taken to ensure that users are not deprived of their basic constitutional rights"; which includes "(a)" the right not to be deprived of freedom arbitrarily or without just cause.⁹⁻¹¹

Core standards on access include:

- 2.3.9. "Service facilities, where ever possible, are designed and signposted so as to promote ease and safety for users"; and
- 2.3.13 "Hospital users, when appropriate, have access to the hospital grounds, their caregivers and local community resources"; including "(a)" hospitalised users have safe access to hospital grounds for exercise, solitude and privacy and "(e)" the user is accessible to their families and friends, including children.

Core standards on treatment and support environments include:

- 2.6.4. "Providers should endeavour to create a relaxed an informal atmosphere in their units, while maintaining a safe and secure environment for users"; "(a)" environments for users are designed for the minimum degree of physical restrictiveness, and should not resemble prisons, such as unnecessary bars on windows and one-way glass.

According to these standards^{8,9,10}, mental health care environments should then ensure: - freedom of movement and association (for voluntary users); - amenable spaces for receiving visitors in relative privacy for all users; - segregation of sexes in sleeping quarters, but not in social spaces; - a choice of inside and outside leisure spaces and activities for all users; - control points to monitor movement of involuntary users within these choices; - structured rehabilitation therapies within the unit; - sufficient supervision of users to ensure the safety of all, without unnecessary intrusion; - elimination of possibilities for injury, even for users intent on harm; - clear and easy access and circulation, also for disabled and disorientated users.

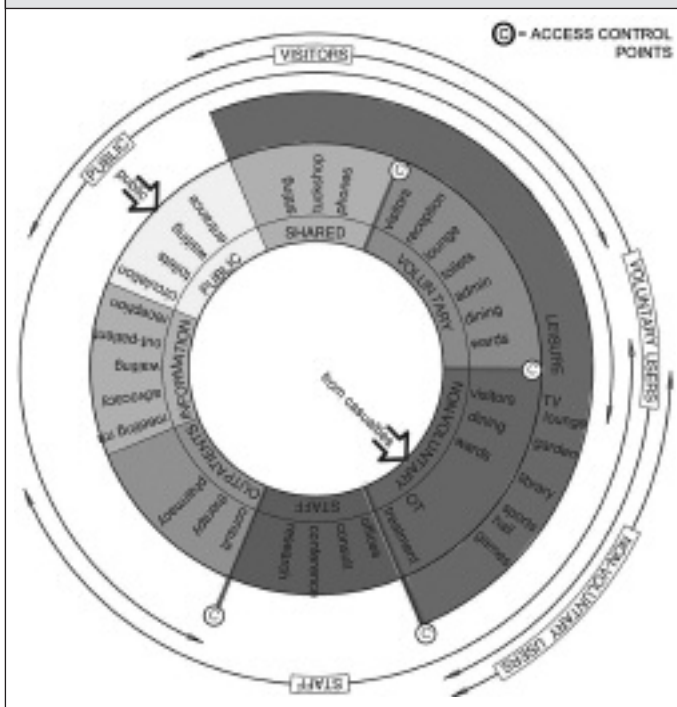
Additional requirements to facilitate recovery and the breakdown of stigma as mentioned during personal interviews by health care professionals at HJH include: - mental health care facilities should be designed to have a home-like rather than institutional atmosphere; - spaces should facilitate users' redefinition of identity in changed circumstances; - spaces should facilitate users' communication in different contexts; and - the facility should present an accessible and welcoming public edge. (Bracken CA, Kühn J. Personal communication).

In an acute 72-hour assessment unit where different requirements apply to different categories of users in the same physical space, an additional problem exists in that some of these requirements are in conflict, e.g. freedom of movement vs. control of movement of involuntary users; security and privacy vs. surveillance; seclusion and protection vs. reintegration into community.

Spatial implications of mental health norms and standards

Considering these principles and standards, as well as the implications of the requirements of the MHCA, deductions

Figure 1: Spatial differentiation according to user functionality



were made for practical guidelines to consider in the design of acute mental health care facilities. A graphic representation of these guidelines derived for the structuring of space for acute mental health care is presented as Figure 1. This enabled the process of the translation of these qualitative requirements into the actual designing of space and construction of a building. If the above mentioned qualitative standards are to be met in a concept design for the use of space for acute mental health care in a unit such as the HJH facility, the following practical spatial design guidelines must be taken into account:

- (1) Spaces at all scales should communicate clear individual identity to help users to re-orientate themselves to a changed environment.
- (2) Space in the unit should be segregated into zones according to user functionality and privacy with supervised transition points between zones that are fully accessible to voluntary users, but can control the movement of non-voluntary users.
- (3) Rehabilitation therapies and a variety of leisure spaces should be accommodated inside the zone where involuntary users can move freely, i.e. in the more restricted areas. The communal leisure spaces should open into safe contained outdoor spaces for the exclusive use of the unit.
- (4) There should be visitors' sitting rooms in both the restricted and the unrestricted zones.
- (5) Staff facilities (e.g. offices, tea rooms, sleep-over rooms) should be separated from user areas (e.g. bedrooms and bathrooms).
- (6) Circulation routes should be simply linear or preferably circular. There must be sufficient visual connection between circulation space and group activities to invite participation and facilitate orientation.
- (7) Open lines of sight should be provided to all access points, circulation spaces and entrances to communal

spaces from central surveillance points.

- (8) A range of different informal spaces should be provided which allow privacy without compromising visibility, to facilitate different types of communication. There should be a wide choice of types of spaces e.g. open / sheltered; private / communal; inside / outside; active / contemplative.
- (9) The interface between the public and the unit should be a contact point for enquiries, public education on mental health issues with shared facilities offering a positive connection.
- (10) Colour coding should be used to help disorientated users to find their way around. Variety in colour, scale and width should be used to create a more amenable atmosphere. Long passages with identical closed doors are the epitome of institutionalization.
- (11) Apart from the obvious requirements of accessibility for the disabled and statutory safety requirements, careful consideration should be given to all choices of materials and fittings with regard to their potential for accidental or intended injury, and especially to safe containment of involuntary areas without a prison-like appearance.

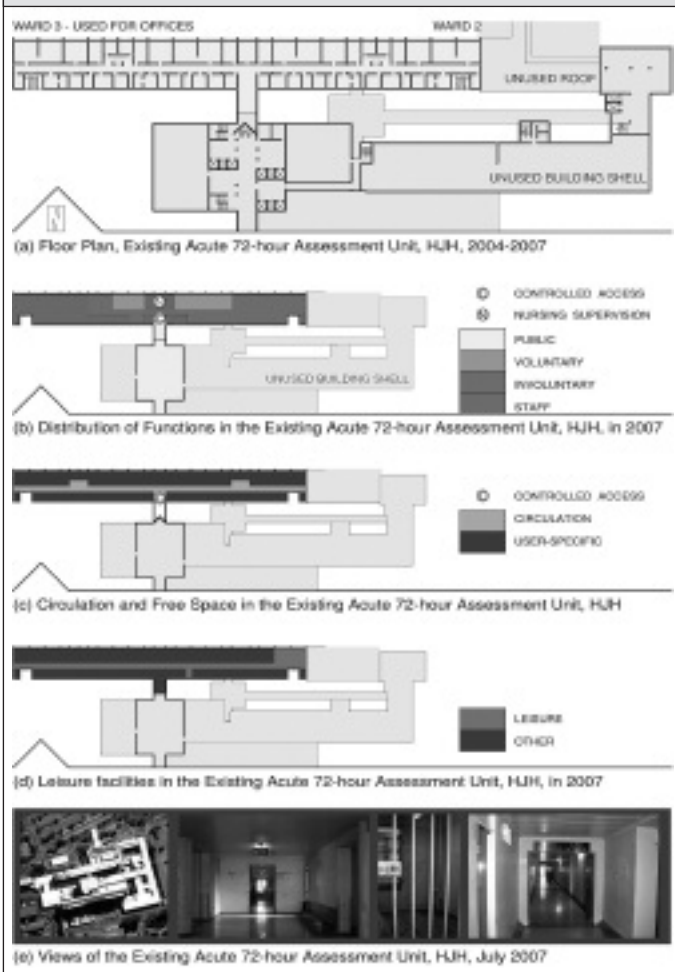
Assessment of the existing facility and potential use of new spaces

Helen Joseph Hospital the former JG Strijdom hospital is currently a 480 bed regional hospital facility, planned in 1967 as a 750 bed academic hospital for the future medical school of the "Randse Afrikaanse Universiteit".¹² This never happened, resulting in extensive still unutilized built areas. The hospital is a 7-storey grid of 127m long passages with a standard medical ward layout. The current psychiatric unit is accommodated on the second floor in one of these layouts, never designed to accommodate a mental health care unit.

On-site assessments and a survey of the existing facility and potential new spaces were made during July 2007 and Mar-Apr 2008 (Figure 2 a-e). The unit generally appeared dark, neglected, devoid of any identity, impersonal and institutional. The maintenance of this section of the hospital seems to have been neglected for many years, resulting in significant plumbing problems amongst others. The long closed passage serves wards on the north side and smaller service spaces on the south. The only central access to the passage is barred off from the lift lobby with a controlled steel security gate. There is no direct access to outside spaces. Staff offices and OT spaces are accommodated in vacated wards on the north or in the smaller south service cubicles, resulting in only 30 beds remaining in a section that had been designed for 64. The nurses' station faced the security gate in order to control access but did not allow any line of sight down the passages. The two "security rooms" - one for a male occupant and one for female, were located about 25 meters away from the nurses station in opposite directions. These rooms were cold, drafty, dark, open spaces without doors, divided from the passage by just a security gate and no ablution facilities on the inside. Outpatient visits were accommodated in different part of the hospital, shared with three other departments.

The existing mental health care ward presented the following problems in terms of deducted MHCA requirements and general standards of acceptability: - voluntary users were restricted in the same space as non-voluntary users; - the

Figure 2: Evaluation of existing Acute 72-hour Assessment Unit, HJH, 2007



seclusion space was totally inadequate, to the extent of being in gross violation of human rights; - the lack of privacy and separate space for users of both genders or for vulnerable individuals compromised their dignity and safety; - the position of the nursing station allowed inadequate surveillance of passages and activities; - the lack of access to outside spaces severely restricted choices of movement of all users; - there was no adequate space for leisure or visitors apart from the dining room and the passage; - staff offices and therapy spaces were confined within the ward and visitors had to pass through bedroom and open security areas; - there were no facilities for physically disabled users; and - the general atmosphere did not facilitate any mental well-being at all.

Apart from the existing facility, the following opportunities for potential extension of the ward existed: - there was an extensive unused single storey structural shell for a potential office wing on the same floor; - there was a huge vacant double volume space which could be accessed across the existing flat roof for potential OT activities; and - the existing roof area could be altered and secured to become an adequate outside leisure and garden area, effectively linking the two enclosed areas. These features provide an unusual potential to integrate all mental health care activities, including an outpatient area and an easy link to the casualty section, on one level in a single circulation route with several vertical connections (lift shafts) to other levels and outside hospital entrances.

Proposed concept design

Following the on-site assessment and applying the deduced guidelines for spatial differentiation to the use of space for acute health care at HJH, a concept design was proposed that would reconstruct and refurbish existing physical facilities to accommodate all operational areas (service delivery, teaching and research) and associated activities expected from a designated 72-hour assessment of this nature. Features of the concept design included: - a new therapeutic identity for the unit (Figure 3); - one integrated but differentiated circular route in which in- and out-patient facilities, staff offices, OT spaces, as well as a potential research area were linked; - a community interface in the outpatient section, allowing for offices for advocacy groups and a conference room; - a differentiated progression from unrestricted to more secure space, according to user functionality; and - different types and sizes of leisure and visitors spaces allowing more privacy.

Considering what could be done with the immediate budget in 2007, Phase 1 was a proposal for refurbishing (minimal structural changes), leaving the more expensive major alterations for Phase 2. The two phases were planned sequentially so that the existing facilities could be rationalized for optimal use in Phase 1 and then re-allocated in Phase 2 when additional facilities could be added, remaining functional throughout. The elements, time frame, floor plan drawings and images of the completed result of Phase 1 are presented in Figure 4 a-e and in Table I. The elements, time, frame floor

Figure 3: Redefined identity of the Acute 72-hour Assessment Unit, HJH, after 2007



Table I: Phase 1: Painting and limited refurbishing of Wards 2 and 3

- | | |
|--------------------------------|--|
| (1) Priorities | <ul style="list-style-type: none"> - Rationalize access and create reception area - Create definition and identity - Differentiation of voluntary and involuntary space - Provision of leisure and visitor's space |
| (2) Features of Phase 1 design | <ul style="list-style-type: none"> - New name and logo: Ekukhanyeni - "Where light is restored" - Provision of access control points (gate) in passage to provide separate non-voluntary space - Moving nurses' station back to central position - High-care seclusion areas positioned closest to nurses' station - Re-assignment of space to provide a leisure/visitors' area - Repainting of entire unit in a differentiating colour scheme - Furnishing of leisure area |
| (3) Progress with project | <ul style="list-style-type: none"> - Completed, December 2008 |

Figure 4: Refurbishments to Acute 72-hour Assessment Unit, HJH, 2008

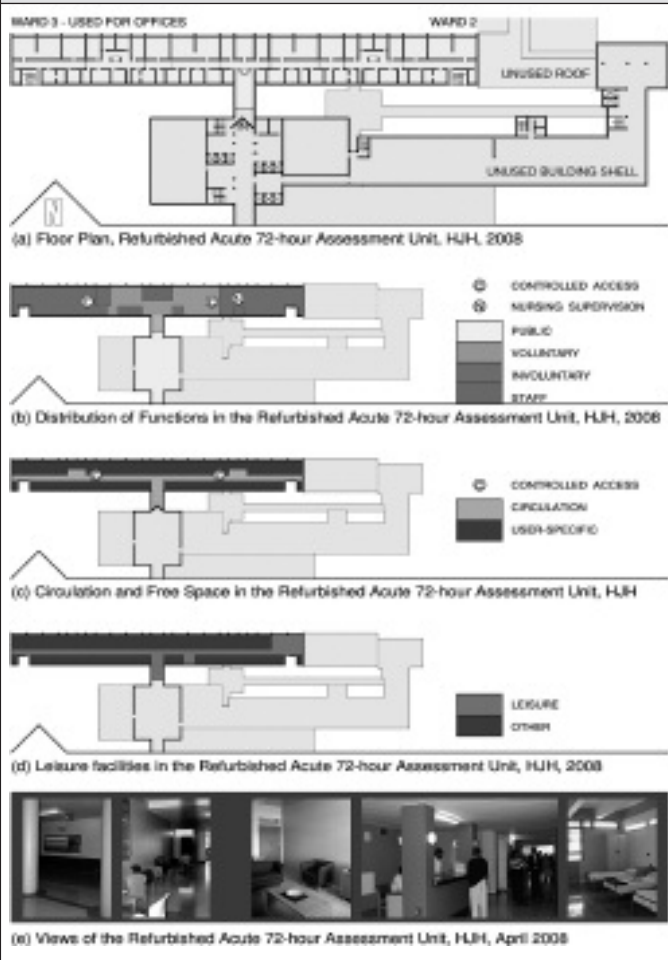
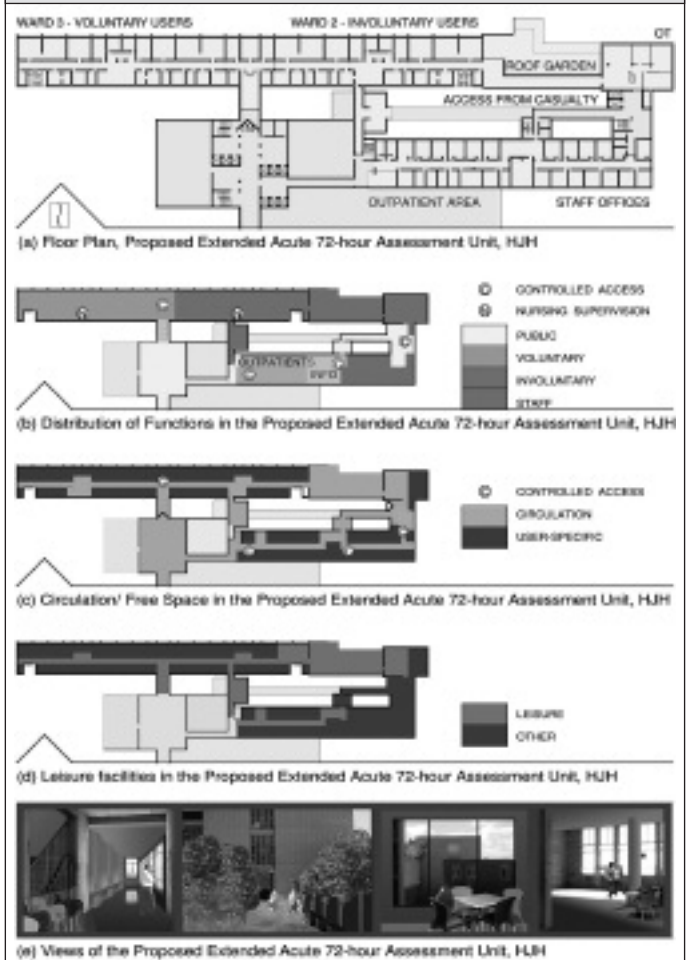


Figure 5: Phase 2 - Proposed extended Acute 72-hour Assessment Unit, HJH



plan drawings and images of the proposed result of Phase 2 are presented in Figure 5 a-e and in the Table II. To inform the practical processes of facility and financial

planning, the proposed concept design was differentiated into zones with different construction and cost requirements (Figure 6).

Table II. Phase 2: Extension of existing wards and integration of services

- (1) Priorities
 - Align unit fully with MHCA requirements, providing additional leisure space including a garden
 - Provide at least 40 beds by moving office areas to outside the ward
 - Accessibility and integration of outpatient, inpatient and emergency areas
 - Provide OT centre and potential research facilities
 - Community interface with advocacy and group meetings
- (2) Features of Phase 2 Design
 - Two independent units of 24 beds each; segregated into non-voluntary (ward 2) and voluntary (ward 3)
 - Secure roof garden and linking covered passages
 - Circular access route on same floor level to all areas
 - Separate staff offices and OT areas
 - Integrated in- and out-patients, research and advocacy areas
- (3) Progress with project
 - Concept design and recommendations submitted to Gauteng Department of Health, May 2008

Capital Cost Calculations

Phase 1: Painting and limited refurbishing of Wards 2 and 3

- (1) The costing calculation for Phase 1 is summarised in Table III.
- (2) The budget for Phase I was R250,000.00 (2007 prices),

Table III. Cost Calculations for Phase 1 - Refurbishment of the acute 72-hour assessment unit, HJH (2007 prices)

Item	Approximate cost (mainly donated in kind)	Total floor area m ²	Cost R/m ²
Paint (supplied by Plascon)	R 100,000.00	1750	
Labour: repairing surfaces, painting (supplied by PWD)	R 100,000.00	1750	
Minor alterations	R 20,000.00		
Furnishings	R 30,000.00		
Total cost	R 250,000.00	1750	R 142.86

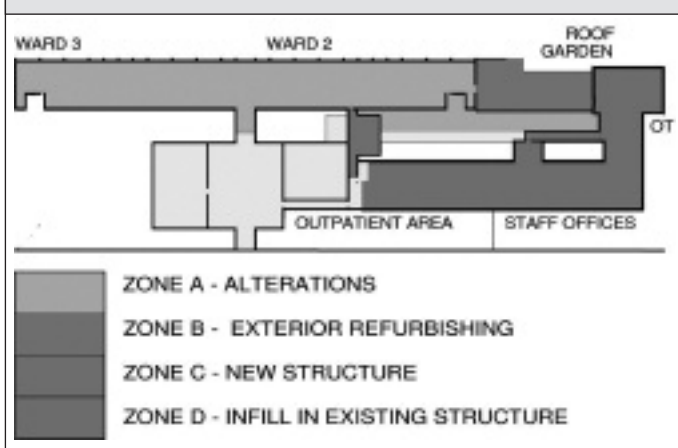
Table IV. Cost calculations for Phase 2 - Proposed extensions to the acute 72-hour assessment unit, HJH (2008 prices)

Cost Zone	Estimated price/m ²	Area m ²	Estimated price (R)
A. Alterations	R 74.03	1750	R 130,000.00
B. Exterior refurbishing	R 800.00	370	R 296,000.00
C. New structure	R 5,000.00	100	R 500,000.00
D. Infill in existing structure	R 3,000.00	1360	R 4,080,000.00
Estimated cost + 10% Professional fees		3,580	R 5,006,000.00 R 500,600.00
Estimated total cost		3,580	R 5,506,600.00

Table V. Comparison of cost to altering existing facilities and cost to construct a new facility at HJH (2007 prices)

Phase	Cost: changes to existing	Cost: new structure
1	R 250,000.00	
2	R 5,506,600.00	
Total	R 5,756,600.00	R 21,480,000.00
Divide by area	3580	3580
Cost/ m ²	R 1,608	R 6,000.00
%	27%	100%

Figure 6: Phase 2 proposed extensions: cost zones for cost calculations



comprising of the Khanyisa award and Plascon paint donation. Labour was supplied by Public Works Department. The area that was refurbished was 1750m² at an average cost of labour plus materials of R200/m².

Phase 2: Extension of existing wards and integration of services

(1) Cost at May 2008 retail prices for materials and labour was calculated for the differentiated cost zones as follows (Table IV; Figure 6):

A. Alterations – For minor changes to areas refurbished in Phase 1 (e.g. altering nursing stations, opening to roof

links, changing passage doors/gates, glass entrance doors to unit) allow R130,000.00.

B. Exterior refurbishing - Roof garden: securing perimeter, laying additional waterproofing and drainage layers on roof surface, building planters, filling planters with topsoil, laying paving, planting; at R800.00/m² allow R296,000.00.

C. New structure - On existing concrete slab: walls, roofs, finishes; services at R5,000.00/m² allow R500,000.00.

D. Infill in existing structure - Filling in partitioning, services and finishes in existing shell; at R3,000.00/m² allow R4,080,00.00

A 10% professional fee was added to the calculation of the total estimated cost.

(2) Budget: The cost estimate for Phase II (total area 3580 m²) was R5,506,600.00, calculated at May 2008 prices.

Although it is recommended that mental health care units must be situated on ground floor⁸, Helen Joseph Hospital's unique situation with unused structure, including the roof terrace, presents the unusual possibility to alter the existing second floor unit to make it fully compliant with the recent legislation. This scenario obviously offers considerable savings. This means that instead of building a complete new unit at ground floor level, the existing area can be doubled to 3580m² for about R1653.00/m². If one compares this with the cost of building a new mental health care unit at about R6000.00/m² (Table V), this amounts to 27% of the cost, making it a very viable option.

Discussion

No official guidelines exist for the structuring of space and design for local acute 72-hour mental health care assessment units. A deduction had to be made from the MHCA, from available internal technical reports and from South African norms and standards.^{9,10,11} From these normative descriptions, spatial principles were derived and formulated as design guidelines for an acute unit. Figure 1 is a graphic representation of this differentiation of space according to these deducted guidelines accounting for user functionality. The concept offers the solution of a circulation route that integrates all spaces on the same level in a gradient from less to more secure space. Control and supervision points are incorporated at strategic positions. The concept addressed the use of space for acute mental health care at HJH, but may also serve as a model to consider design solutions for other acute mental health care settings. Without this type of differentiation of space in an acute mental health care unit, it will not be possible to implement the principles of the current legislation in a way that adheres to identified human rights requirements for mental health care users.

Phase 1 of the proposed concept design was accepted and executed because of the immediate availability of donated materials and labor. The phase was completed by December 2008 meeting the following objectives: a positive new identity; differentiation of space according to functionality, increased freedom of movement, better surveillance, more personalized leisure and visiting areas and safer high care areas. This phase brought about a

dramatic difference to the general atmosphere and motivation of staff for a relatively low cost per square meter. Discussions on Phase 2 were held with clinical staff and representatives of the hospital management during the first part of 2008, following the directive from Gauteng Province about the objective of 40 beds per acute unit. A draft proposal with estimated cost of this proposed design solution was submitted to the provincial department of health in May 2008 and was included in a business plan for the development of the mental health care unit at HJH submitted to the hospital management in February 2009. Comparing this estimate with the much higher cost of the construction of an entirely new unit to align services with requirements supported the viability of an approach to rather adjust existing structures.

Conclusion

An integral part of the realization of the human rights of mental health care users as protected by current mental health legislation is to ensure that the physical spaces and structure of facilities for mental health care are carefully aligned to the needs and functionality of a spectrum of mental health care users. Appropriate design solutions enable the implementation of mental health programs, facilitate service rendering and promote optimal staff involvement. In fact, it is not possible to offer the standards of service suggested by the MHCA without such design amendments. Appropriate structural adjustments to acute mental health care units should urgently be implemented in order for mental health facilities not to be in violation of the MHCA's regulations on basic human rights. In the case of HJH, it would be significantly cheaper to refurbish existing facilities, than to build an entirely new structure.

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