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Developing a User-Perception Assessment Tool for Health Facilities in South Africa

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ABSTRACT AND KEYWORDS

Purpose of research

The research aims at developing a user-perception assessment tool for health facilities in South Africa. It is intended to be integrated with a broader health-facility performance assessment tool for functionality, impact, and building durability and quality.

Methodology

The research approach assumes the post-modernist thinking and grounded theory. It used a pilot site method with interviews, questionnaires, observations and the capturing of photos as data collecting tools. The research was designed in two phases with the initial findings creating the basis for the design of the pilot version of the tool.

Findings

First phase findings indicated that the main issues of concern for users of health facilities include: the building image, cleanliness and housekeeping, safety, accessibility, respect and dignity for patients, signage, internal views, image of the building, privacy, space requirements, layout, waiting time and rooms, treatment, and surrounding environment. Phase two which used a pilot version of the structured tool gave similar results.

Practical implications (if applicable)

In conclusion, the tool is able to draw out useful information from the users' perspective that can contribute positively to the improvement of health facilities in the country; both in terms of management and maintenance at a

facility level as well as planning and design at a strategic level with national and provincial departments.

Keywords:

Health facilities, user perceptions, assessment tool

1.1 INTRODUCTION

The objective of this research is to develop a user-perception assessment tool for health facilities in South Africa. The user-perception assessment tool is intended to be integrated into a broader health-facility performance assessment tool. The broader tool is envisaged to assess the performance of health facilities in areas of functionality, impact, and building durability and quality. The process will involve developing and testing the tool at a pilot hospital in the country.

The paper includes the following sections: background; methodology; user perceptions and health facilities; assessment of health facilities; areas of concern for users; what influences user perceptions of health facilities (HFs); and conclusions, and recommendations.

1.2 BACKGROUND

Health is a key government service sector, with complex unique service and infrastructure requirements. While government, through the Department of Health (DoH) and the provinces, has embarked on a major, multi-year capital reinvestment programme aimed at transforming the public health estate in the form of the Revitalisation Programme, this is poorly supported by current guidelines, norms and standards to underpin facilities planning, design, operation and maintenance. This reality, coupled with a critical shortage of capacity and skills in the public and private sectors, is leading to a situation where the investment is not being optimally utilised and there is a significant opportunity loss in the 'once-in-a-lifetime' focused investment programme to rebuild the health estate.

While there are detailed health-service indicators providing detailed activity, patient, staff and service cost indicators potentially allowing for effective health-service planning, there is no comparable database of health-facility asset maintenance, operational or cost indicators. It is therefore currently not possible to measure, compare or benchmark facilities-management performance in the local public sector. There is substantial evidence of poor performance at individual facility level, but it is not possible to aggregate this, to draw any national perspective or conclusions, or to plan towards improved performance.

The Health Group (CSIR, 1999a & b) developed two volumes of the Primary Health Care Guide with an on set that reads:

“Before any health facility is built, it is imperative to determine the actual needs of the population that is to be served as opposed to the perceived needs. The health profile of the catchment area should be researched to estimate present and future needs, the condition of physical structures and the level of service provided at existing health facilities should be examined, the availability of staff for the new facility and running and maintenance costs should be established.”

This gives a clear indication that further development of similar guides and tools requires a thorough background study. The group also published the General Ward Guide (CSIR, 1999c), which provides a good starting point for the design of wards; however, it is limited in the sense that it does not elaborate on the current issues of providing wards which can be described as healing environments,¹ or support the involvement of friends and relatives in the healing process.¹

The research work that has been done in the area of evidence-based design [EBD] has shown that the environment has an impact on the process of healing.² Therefore it is imperative to ensure that any measurement or assessment of a hospital includes the views of the people accessing it. This would enable an assessor to check if the facility is providing appropriate services and the healing environment required by the population it serves, and to align the services and facility accordingly.

There are a number of initiatives which impact on asset management which currently have or shortly will impact directly on health facilities and services. These include strategic asset planning, immovable asset recognition and management as covered by current and pending legislation (PFMA, GIAMA and the Health Act inter alia).

There is a range of specific high-profile health issues – such as disease transmission in health facilities (most importantly MDR TB and other nosocomial infections) and the implications of new service technologies (medical and IT) – impacting on health-service delivery and the design and management of health facilities. In addition, there is little information on how people perceive their health facility environment and on the link between cultural perspectives and health facilities. These all require further research and management.

1.3 METHODOLOGY

The research approach assumes the post-modernist thinking that there are different perceptions to issues (Cilliers, 1998). It is also based on grounded

¹ Concepts of a healing and supporting environment – see Malkin, 2003

² Evidence-based design is elaborated on by Van den Berg in *Healing by Architecture*

theory (O’Leary, 2004) in the sense that the development of the tool will be influenced by and incorporates knowledge generated from data collected through fieldwork. It will use a pilot site for the development of the tool, and research methods are through interviews, surveys and observations. The tools for collecting data include questionnaires, an observation checklist and the taking of photos.

The project was divided into two phases. Phase one created the basis for the development and design of the pilot version of the tool for phase two. One of the level one³ hospitals was used as a pilot site on advice from relevant stakeholders. The users were identified from the hospital itself and feeder community health centres (CHCs). Four CHCs were chosen, based on the following criteria: the CHC has to feed into hospital; different backgrounds – i.e., previously coloured or black areas; two case studies from similar backgrounds to validate the results; and availability -permission to access facility and conduct the surveys.

The users of health facilities were broadly defined to include occupants of health facilities – the members of staff; the community users; patients; non-governmental organisations (NGOs) and community-based organisations (CBOs); and other stakeholders – like government departments including the South African Police Service (SAPS); tertiary institutions like universities and feeder CHCs.

The field workers visited the health facility site and interviewed people there randomly. However, the interviewees had to have been to the particular hospital in question, be willing to participate in the survey, and not be too sick to be rational. In cases where the interviewee seemed illogical, the questionnaires were discarded, although there was only one such case. The random survey approach was assumed for logistical reasons, namely the form of primary information source, and socio-economic dynamics.

1.3 USER PERCEPTIONS AND HEALTH FACILITIES

Behaviour and actions of people are motivated by perceptions and not rational reasoning. Thus the way a person feels about a hospital is not based on whether it is able to address their health needs and wants, but it is influenced by their feelings about it. These perceptions may be different from the health service provider’s point of view in terms of what services they should be providing. The WRC Report, which has yet to be published, indicates that “perceptions are formed through:

- feelings, beliefs, mental pictures, gut feel;
- the sum total of receptions of information accumulated over time, including experiences;

³ The health system categorises hospitals in levels including level 1-District Hospitals; Level 2 –Central (specialised) Hospitals; and Level 3 –Tertiary Hospitals.

- the reality that obtains although it may not be 'true'; and
- change with changing circumstances – information.”

The above shows that, while from a technical and service point of view the hospital could be performing well, the users may perceive it differently based on their reality. This makes it important to assess the user perceptions so that both user perceptions and the hospital can be managed accordingly. Gerteis (1993) introduces the concept of “patient-centered care to describe an approach that consciously adopts the patient’s perspective”. The question posed was: “What is it about their interaction with providers, systems, and institutions that patients say matters to them and affects them, either positively or negatively?” (Ibid) The results indicate the following as primary dimensions: Respect for patients’ values, preferences and expressed needs; coordination and integration of care; information, communication and education; physical comfort; emotional support and alleviation of fear and anxiety; involvement of family and friends; and transition and continuity. A number of relevant questions arise as affecting users of hospitals, including:

- How can respect for patients be reflected in terms of space?
- What design layout can allow for good coordination and integration of care?
- What characteristics are desired in the hospital environment?
- How can the design of hospital spaces enhance family / friends involvement?
- What kind of support programmes are required to provide a comprehensive service?

In the South African context, there are also aspects of traditional health practices and beliefs which play an important role and can not be overlooked. Research (Du Plessis, 2006; WHO, 2002; Richter, 2003) shows that about 80% of black South Africans consult traditional healers. In addition, the approach to healing, unlike Western practices which only address diseases, is very holistic. It involves physical, spiritual and mental healing. Considering that the black people constitute the highest proportion of the South African population, it is evident that traditional healers are playing a major role. Traditional medicine has been defined as (WHO, 2002: 7):

“[Including] diverse health practices, approaches, knowledge and beliefs incorporating plant, animal and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness.”

There are efforts to formalise the traditional practices through creating organisation capacity among the stakeholders involved. Traditional healers are organised at national, provincial and city levels. In fact, the DoH has even established a directorate for traditional medicine. However, the government does not provide infrastructure to house these practices, although the Health Act (2003) stipulates that the government has the responsibility to ensure that health practices are performed in appropriate

environments. This is more a regulatory function which does not oblige the government to provide the facilities.

Research has been conducted relative to the possibility of integrative health programmes (Bhika, 2004). But there is no evidence of any research of integrating traditional practices in the health system. Coupled with that should be research for integrated health facilities. An examination of existing traditional health facilities and close interactions with the stakeholders involved can lead to the development of a design brief for appropriate facilities for traditional medicine. There are potential benefits both for the user community and the government in considering this aspect of research and, ultimately, it can improve the user's perceptions of health facilities. There are also some religious groupings which practice healing as part of their faith, the Zion Christian Church being one of them.

Therefore in assessing health facilities in South Africa, it is important to take cognisance of user perceptions to ensure that the facility is meeting people's expectations especially in terms of values and preferences.

1.4 PERFORMANCE ASSESSMENT OF HEALTH FACILITIES

Literature shows that the assessment of the performance of health facilities (AEDET, NHS) is generally at three levels: functionality in terms of uses, access, and spaces; impact in terms of character and innovation, citizen satisfaction, internal environment, urban, and social integration; and building standard in terms of performance, engineering and construction. AEDET enables the user to evaluate the design of the health facilities from a non-technical perspective at all levels. This tool was found to be very comprehensive in terms of the approach and design model, but it could not be adopted without determining the contextual issues. It has been argued that even historically, buildings were assessed in similar ways (Geoff, 2006).

Likewise in South African, it has been proposed that (Ibid) the performance of health facilities should be assessed according to the following areas:

- Durability / construction / building including extent, construction and materials; condition of the building and site works; suitability; maintenance programme, budget, resources and effectiveness; and building risk;
- Functionality, including space use; functional efficiency – whole facility and systems; departmental efficiency; legislative compliance; access; security; and operational risk, and
- Impact, including service alignment; utilisation; financial performance; public / patient perception; environmental impact; and housekeeping.

This is what has led to the development of the proposed framework of the integrated assessment tool. There are other tools for assessment of buildings like SBAT (Gibberd, 2005) which has a strong focus on

community participation in the whole life-cycle of a building. NEAT (NHS) includes the environmental aspect in the evaluation. In the Netherlands they have developed a similar tool called Qind (Wessels, 2004) which also gives good, but similar aspects in terms of what should be assessed. In all these tools, the aspects of impact, functionality and building quality are emphasised.

1.5 FINDINGS: AREAS OF CONCERN FOR USERS

Phase one of the survey included open ended questions regarding the perceptions of users of the hospital. The questions were around categories of users, namely patient, staff, and visitor; whether they liked the hospital or not and why; how they access the hospital; what their experience of the hospital was; and what improvements they would like made to the hospital. The objectives were to establish the main aspects of the hospital that affect the users to be included in the assessment tool; and establish areas for improvement at a facility level. The findings specific to the pilot hospital facility are not discussed in this paper. The following are the main areas of concern that arose as a result of a thematic analysis of the data collected:

1.5.1 Accessibility

Logistical accessibility to the health facility is very important in terms of public transport to get there or being within walking distance. A health facility needs to be in easy access either by living near the locality or on the main public-transport route. However, even if it is on the main public transport route, some patients do not have the money for public transport. This creates a need for an integrated transport system between the referral health facilities.

There were no problems with regards to the process of accessing the hospital, which is structured according to the referral system of the Department of Health (DoH). District hospitals have catchment areas from which patients are referred, although the high congestion makes it difficult to access the health services at certain hospitals which make the waiting time long. In some cases, patients are sent back to their CHCs, causing them to be very frustrated.

1.5.2 Safety

It is important that users feel secure both in transit to and fro, and inside the hospital facility. If a hospital is located in high crime areas, patients and visitors coming to the hospital do not feel safe, either inside or in transit to the hospital. There are reported incidences (CSIR, 2007) of theft of

accessories, as well as medicines, from visitors and patients in transit, and bullets flying into hospital buildings.

1.5.3 Housekeeping and cleanliness of the hospital

The users are generally concerned about the state of the hospital in terms of cleanliness and management of housekeeping issues like the bedding and ablution facilities. This was especially so regarding blood on the floors and dirty linen which they fear may lead to the spread of germs and infections.

1.5.4 Proper signage to and within the hospital

Finding one's way both to and inside the hospital is seen as important. Most patients get lost on the way to the hospital, increasing their vulnerability to crime. And inside the hospital the signs should be clear to prevent confusion.

1.5.5 Internal views

The internal views of the hospital play a vital role especially for patients and staff because they spend prolonged periods of time there. Even the visitors should find the internal walls attractive and inviting. A hospital should not be said to have dull internal views.

1.5.6 Image of the hospital building

While an architect would consider a low-rise hospital building as being at human scale and functional, there is an impression that a hospital should be a high-rise building. Users felt that a hospital should not be 'flat' or single storey, which makes it look like a school, an old people's home, or a hostel.

1.5.7 Privacy and respect for patients

For the patients to express themselves freely and honestly when giving their medical history, there is a need for both visual and audio privacy. Privacy was also perceived at another level – that of how much time the doctor spends with the patient. It was offensive to the patients that the doctors always seemed to be in a hurry. In addition, even if there is a lack of bed space in certain wards, mixed wards created by introducing a bay for

members of the opposite sex are not welcome. It was perceived as an unacceptable practice.

1.5.8 Space requirements and physical comfort

It is evident from the observations as well as inputs from interviewees that congestion in a hospital indicates that it is too small. There should be enough bed space and waiting space for both admitted and waiting patients. This was closely related to physical comfort in terms of hospital furniture but also proper ventilation for fresh air. Although on the question of fresh air, ability to control the comfort levels by the users was mentioned to be important especially at night when it is cold.

1.5.9 Layout

The general layout of the hospital has an impact on the level of privacy, what the users are exposed to as well as finding their way. The hospital layout should enhance privacy and make it easy for users to find their way inside the hospital. In terms of exposure, certain groups of people are offended at being exposed to undertakers when they remove the deceased from the hospital. There is a strong feeling that there should be another, private route for them. There are other aspects and situations that should not be exposed.

1.5.10 Respect and dignity for users

Respect and dignity is very important in the way users, especially how patients are treated by the staff. The staff should talk to patients in a respectful and dignified manner, without shouting at them and being impatient.

1.5.11 Waiting time and waiting rooms

Patients especially are not in a condition to wait too long for service. There are isolated unconfirmed cases that have been reported where some patients have died in the queue while waiting for service (CSIR, 2007). That is unacceptable; however, the waiting time should be seen in the context of the workload in certain hospitals. The waiting rooms can play a vital role in making the waiting bearable. Waiting rooms should be comfortable and offer some positive distractions in terms of entertainment. Most users appreciated the fact that television sets have been installed in the main waiting rooms in some hospitals.

1.5.12 Support of family and friends

Most users would like to give and get support from their family and friends. While it was agreed that users are allowed to give and receive support, it would be appreciated if the duration of visits was extended, increase the number of people allowed per patient, and scheduled the visits appropriately taking into consideration issues of transport and crime.

1.5.13 Surrounding environment

Most users appreciated the positive impact of the nice gardens; it was said that they give the feeling that you will be taken good care of, though the experience in the hospital may be different.

1.5.14 Treatment

Good treatment described in terms of access to appropriate equipment such as x-rays, facilities such as theatres, doctors, and medication, was of great importance. It was one of the main reasons that users, patients in particular still go to the hospitals even if the hospital may not be in a good condition.

1.6 FINDINGS: WHAT INFLUENCES USER PERCEPTIONS OF HEALTH FACILITIES

There were both positive and negative perceptions of health facilities. The negative perceptions are influenced by the quality of service and the way patients are treated by staff, especially nurses. The service described as very poor is characterised by long waiting time; poorly managed waiting rooms; poor house keeping; and lack of respect and care for patients. Unfortunately, the structure of the health system does not give users, patients, and an option to use alternative hospitals that may be perceived better.

At another level, the negative perceptions can be influenced by a number of other aspects. The history of the hospital plays a vital part and its location. There is a general perception that hospitals in previously disadvantaged areas are bad. The mortality rate, which is viewed independent from the surrounding circumstances, can make the users to lose faith and trust in the hospital establishment. For example, if most users have lost a family / friend in the particular hospital. In addition, previous

negative personal experience creates evidence of the type of service that one would get from a particular hospital. However, members of staff attributed most of the drivers of negative perceptions to the challenges facing health system as a whole especially the lack of adequate and permanent staff.

Positive perceptions about health facilities are driven by the fact that they provide an important essential service to the community. In addition, high quality of treatment in the form of special facilities, equipment and medication, including good doctors attract users to a health facility.

1.7 CONCLUSIONS AND RECOMMENDATIONS

Based on the above findings, the pilot version of the tool was developed, tested and refined in phase two of the project. It is structured with ratings from 1 (strongly disagree) to 5 (strongly agree) and the statements included are shown below. A column for comments is also included. The tool was tested and refined in terms of the kind of information it was eliciting as well as the level of understanding of the different questions asked. Phase two results were similar to phase one in terms of information and there was more than 80% response to each question. From the piloted test it is evident that the tool is generating useful information that can have a positive impact in terms of incorporating user requirements in the management and maintenance of health facilities. The next step is to incorporate it into the broader tool that looks at other performance areas which have been summarised as functional, impact, and building quality and durability. Another important aspect is to design appropriate software to capture the information in a way that makes generation of reports easier - per type of user: visitor, patient, staff, but this is part of the overall project. There are possible practical applications on current work and in collaboration with other stakeholders in the sector.

It is important to take into consideration the user perceptions of health facilities for improved impact on the users as well as the broad community. The user perceptions should be incorporated both at a facility level in terms of management and maintenance; and at a strategic level in terms of planning and design.

Further research is required around possible solutions to user concerns. It is important and necessary to investigate and interrogate areas of research that can provide some solutions by assessing the application of current concepts in the planning and design of health facilities, especially the concept of creating 'healing' environments.

Statements included in the User Perception Assessment Tool for Health Facilities in South Africa

1. It is easy to get (travel) to the hospital
2. It is safe to travel (get) to hospital

3. The entrance to the hospital is visible
4. The hospital building is attractive in appearance
5. The hospital is clean
6. The hospital building is clearly understandable (easy to find your way inside the building)
7. The hospital building respects the dignity of patients and allows for appropriate levels of privacy and dignity
8. Patients attending the hospital receive quality care
9. The hospital offers very good treatment
10. The hospital provides a comfortable healing environment
11. There are good ablution (bath and toilet) facilities for users at the hospital
12. The hospital provides a safe (in terms of security) environment
13. The hospital allows for the support and involvement of family and friends
14. There are good views from inside the hospital building such that patients and staff relax and work-/heal better
15. Patients and staff have good access to outdoors
16. I like the hospital (because of a good previous experience)
17. The hospital has a good reputation

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