

Elements of Healing Environment in Healthcare Centre

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Abstract: The intent of this study is to provide a space where healing can take place and explore how physical environment can be used as an element to inform healing. The main aim of this study is to create a healing environment in healthcare centre which will help to reduce the stress on the patient, staff, doctors and their relatives to escalate the effectiveness of medical treatment on the patient's body. To understand the physical and physiological needs of patients in healthcare centre with respect to physical environment case study has done with some observation, experiment and questionnaire response by patient and staff.

Keywords: Healing environment, Elements, Physical environment, Healthcare centre.

1. Introduction

The healthcare centre is complex design and in this we have to look over both functional and physiological needs of patients. To accommodate more patients and utilize maximum amount of functional area people forget to think about physical environment (i.e., view from patient's room, natural light, proper ventilation, access to landscape etc.). This also plays a crucial role in designing healthcare centre. By keeping this in mind I would like to explore how physical environment can be used as an element to create a healing environment? How many elements are there? The main objective of this research is not to cure, heal or healing through meditation but to create a healing environment in healthcare centre by focusing on physical environment which will exhilarate the process of healing.

Earlier healthcare centre was built on the outskirts of the city so that they can get fresh air, pollution free environment, peace, open spaces, access to landscape to heal the patient. But now healthcare centre are going to built within the cities and there is limited area to build healthcare centre. With the increase in population and demand people forget to focus on physical environment (natural light, fresh air, view) and physiological needs of patients.

The approach of this study is to create or provide a healing space to patient, relatives and staff according to their need and understand how they experience the space and evidence based design criteria has also been kept in mind to create a healing environment.

There are many research has been done about creating a healing environment in healthcare centre (i.e., view from

patient room, art on the wall, access to landscape) and it is proved that when the human body is put in a healthy and positive environment it helps to minimize the negative effects of stress from human body and make them heal faster from inside as well as outside of the human body.

2. Related work

A. Literature review

1) Paimio sanatorium Finland-tuberculosis hospital.

It is designed by Ar. Alvar Aalto on the mountainous slopes which provide beautiful views on the site. The building is designed in such a way that every space has proper sunlight, view from window, sun, fresh air. There is a pathway where patient could talk walks with some series of water fountain have preserved flower beds. The wards are provided with cantilevered balconies facing roof top solarium which visually and spatially connect the environment. The ceiling of room has been painted with dark colors so that their will not be too much glare in the room and to maintain visual comfort.



2) Banner good samaritan regional medical centre, phoenix, Arizona.

In 1996 a healing garden was consolidated into the medical centre in Phoenix, Arizona. The garden is a rooftop courtyard bounded on four sides by buildings with porthole windows that provide a view of the garden. In the garden there is a different seating arrangement is provided with sun and shade from where patient can watch people walking in route, listen sound of water fountain, enjoy the sunlight. The addition of colorful art attracts the garden visitor and from the Patient rooms there is a visual connection of patient with healing garden.



B. Case study

1) Case study of muktangan mitra pune primary healthcare centre cum drug de-addiction and rehabilitation centre

It is designed by Ar. Sirish beri. The healthcare centre is design according to the slope of the site, respecting the natural landform. It has a welcoming entrance with a transparency so there will be a controlled flow of traffic and easy for supervision. The waiting area flow into the amphitheatre, which continues the openness of the building. The transparency is maintained by connection out scene of the building to the interior and increases the physical and visual interaction. Raised planters and the spread of flower at the window are used to cheer up the patients. The patient room are zoned near open spaces with the natural elements like sunlight, trees and wind to heal the agitation.



From the literature review and case study we get the patient response and understand the physiological aspect of them. With this we get to know there is some aspect of healing environment proper sunlight, view from patient room, fresh air, access to landscape, sun rays. Patient comfort is the foremost thing while creating a healing environment.

3. Scope of study

The scope of this study is to take a step towards creating a healing environment in healthcare centre which will help to reduce the negative stress on the patient, relatives, and staff and foster the process of healing.

4. Proposed methodology and discussion

There are some questionnaires and survey done in public hospitals of Indore respond by patients, relatives and staff. And understand the physical and physiological needs of patients

with respect to physical environment which is used as an element of healing environment in healthcare centre. There are some questions asked by doctors on a survey of public hospital in Indore about the patients.

Table 1
Interview with a doctor of healthcare centre

Q1. How to divert a mind of patient?
A1. By creating a beautiful view from patients room, using art, color in wall.
Q2. Which type of color, material and texture should be used?
A2. Creating a positive ambience and feeling of well-being.
Q3. What is the importance of built positive environment ?
A3. Helping patients convalesce faster Reduce stress Reduce vandalism Improve staff morale and motivation.
Q4. What are the elements of creating healing environment should focus?
A4. Sunlight, beautiful view from patients room, art, acoustic room, color.

There are some results of survey conducted on 7 patients in multispecialty hospital for 4 days suffering from the same disease.

Table 2
Exposure to sunlight

	Little sun light	Ample sun light
Stress	65%	49%
Patient sleep	78%	81%
Pain	56%	43%
Recovery rate	86%	91%
Communication	47%	61%

There are some results of the survey conducted by Ulrich, of view through a window on recovery days from surgery.

Table 3
View from window

Year	No. of days in ICU, with no view	No. of days in ICU, with good view
2000	4.9	3.8
2001	4.7	3.9
2003	4.6	4.2
2005	4.9	4.5

There are some results of the survey conducted by Hamilton, on single occupancy and multi occupancy room.

Table 4
Single occupancy versus multi occupancy ward

	Single occupancy room	Multi occupancy room
Length of stay	Shorter	Longer
Cost treatment	More	Less
Privacy and comfort	More	Less
Stress level	Lower	Higher
Level of medication	Lower	Higher
Interaction between patient	Less	More
Interaction with family and relatives	More	Less
Medication error or infection rate	Less	More

5. Experimental result

The patient get attention from staff for a very short time and spend most of the time alone. This is where an environment plays a contributory role to create positive ambience and feeling of well-being. "If you feel good you will heal faster". So, it basically means environment has the ability to accelerate the process of healing and make patient healthy.

There is some analysis has been done through case study, literature review and public hospital in Indore. And understand the importance of physical environment which is used as an element of healing environment.

Color- as its own perception of emotional or objective. Emotional perception of color means it can be beautiful or ugly, calming or exciting, warm or cold depending on the person. Color has always been a part of human and culture. Everyone has its own definition of color depending on the experience. It is proven that the right color scheme can help in the well-being of patients and the staff. Every color has its own power to control the emotion of person and even it is used to build positive environment to make a connection with our environment, mind, body, spirit. Even color can change the feeling of space.

Natural light- is one of the most important environmental factors in which we have to look upon in healthcare centre. Many studies have been proved that natural light has a huge impact on the healing process. While it is essential that we should provide a large glazed window so that natural light gets penetrated in the patient room to provide comfort and feeling of space. Natural light creates a positive environment and helps to reduce stress while it also helps to control the infection and increase the recovery rate.

Landscape- has a healing power. A healing garden need to work with nature and its organic forms present in nature. A healing garden has a power to represent all the larger world landscape features like lake, river, mountains through which we will feel connected with our mind, body, spirit and improves vigor. Garden should encourage the patient's healing process through the interaction of human and nature: light, water, wind, wildlife, and color. Healing garden allows us to make a choice: private and public space, watching people, walking routes, different seating with sun and shade.

Water- is the main feature throughout the garden as it represents the "cycle of life". Water represents the phase of life from birth to death. It also said that water carries spiritual information and called as a symbol of purity which will help to bring positivity in mind, body, spirit. Sound of water brings the

feeling of calm, peace, relaxation and tranquility.

Material- is a visual language that has the ability to affect the circulation movement, increase/decrease visual comfort, sense of touch and various other actions. Through the texture of material, we can engage the mind of people in pleasing manner. Materials with different textures have different emotion, feeling, interest and has the power to change a feeling of space through visually and create another dimension of the healing environment.

Open space- and free atmosphere is very important to provide as it gives the sense of freedom and openness to the patient so that they will take their fear out and feel connected to the outside environment. Large window in rooms and cut outs on corridor can act as openness to the people and provide the view from natural surroundings and landscape.

6. Conclusion

As we have studied above data, case study and evidence based design criteria according to which for better health outcomes of patients in healthcare center. There should be a connection of patient with our natural environment i.e., (natural light, natural air, water, green space) so that they will feel self-connection (mind, body, spirit) and make them heal faster.

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