Creating Environments that Heal

Public Healthcare Settings and Health Promotion

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# Table of Contents

Abstract .........................................................................................................................3

Background ....................................................................................................................4

Common Challenges of the Healthcare Setting .........................................................6

Methodology ..................................................................................................................9

Data and Results .........................................................................................................10

Conclusions ................................................................................................................14

References ..................................................................................................................15

Site Visits ...................................................................................................................19

Hospital A (Table 1) ...............................................................................................19

Hospital B (Table 2) ...............................................................................................22

Hospital C (Table 3) ...............................................................................................26
Abstract

Purpose: Health Promotion is a field of practice and initiative to improve the status of world health. First formally defined by the World Health Organization in 1986, it has since been used by health professionals to increase health literacy through education, information access, and wellness interventions. Although hospitals in the US may claim to promote health, Health Promotion as a series of specific objectives has not been applied to healthcare environments.

Recent studies have shown that the healthcare environment affects clinical outcomes. Given its impact on patients, visitors, and staff, a person entering a healthcare facility seeking to maintain or restore health and to have a positive experience will not achieve this if the environment does not promote health. The query of this paper is to determine whether hospital settings promote health.

Methods: The question of whether public hospital areas (as opposed to patient areas) promote health was applied to three facilities located in the same regional area. An observational overview was done on site using an evaluation form developed from several sources: the World Health Organization (WHO) definition of Health Promotion which identifies three components, and reviews of existing studies that consider various environmental factors common to all healthcare settings. The evaluation tool was not empirical, but allowed for descriptions of areas and then for comparison between these three facilities. The criteria to be observed was predetermined and based on research indicating qualities of the built environment that are health promoting.

Results: Observations indicated prominent details within the built environment that affected the quality of the space and its impact on those who were present. Furthermore, inadequacies of existing space, conflicting relationship between adjacent areas, and disregard for special considerations, such as the need for family privacy, resulted in a negative experience, and in some cases, increased observable stress levels of family members and staff.

Conclusions: Current findings and publications in research focusing on the patient/visitor experience in hospitals have affected renovations in the healthcare environment and design of healthcare facilities. At two of the three hospitals visited, ongoing renovations challenged the quality of the un-renovated environment which by comparison, suffered from increased noise levels, confusion in way-finding and general disarray. The effect of environmental qualities on visitors in the waiting areas changed with levels of stress. At all three hospitals, areas of improvement remain. Further research in ways to address health promotion within the healthcare setting is indicated.
Public Healthcare Settings and Health Promotion

“Good health and well being require a clean and harmonious environment in which physical, physiological, social and aesthetic factors are all given their due importance. The environment should be regarded as a resource for improving living conditions and increasing well being.” (WHO 1990)¹

Background

The World Health Organization (WHO) Constitution states that “the enjoyment of the highest attainable standard of health is a fundamental human right of every human being.”² Therefore, it is imperative that this is taken into consideration while constructing the physical environments (built environments) in which we live. Using information from various health resources including the WHO and the American Journal of Health Promotion and focusing on the built environment as a means for promoting health, an evaluation tool was constructed to be used for recording detailed data during observational overviews of three different public healthcare settings. Paying special attention to the quality of the built environment in public waiting areas, the question was examined, “Do public healthcare settings promote health?”

According to the WHO, health promotion is “the process of enabling people to increase control over, and to improve their health.”³ A more detailed definition of Health Promotion is outlined in a 1989 issue of the American Journal of Health Promotion. It states that "Health Promotion is the science and art of helping people change their lifestyle to move toward a state of optimal health. Optimal health is defined as a balance of physical, emotional, social, spiritual, and intellectual health. Lifestyle change can be facilitated through a combination of efforts to enhance awareness, change behavior and create environments that support good health practices. Of the three, supportive environments will probably have the greatest impact in producing lasting change” (American Journal of Health Promotion).³³

The current status of Health Promotion was established in 1986 at the First International Conference on Health Promotion in Ottawa, Canada. This conference produced the Ottawa Charter for Health Promotion which outlined exactly how primary care was to be implemented. Twenty years and five International Conferences later, professionals in health promotion are focusing on addressing the determinants of health in a globalized world, through the utilization of Health Promotion strategies.⁴

According to the Ottawa Charter for Health Promotion, there are three basic strategies used in Health Promotion. The first strategy focuses on advocacy for health and striving for favorable outcomes in the political, economic, social, cultural, environmental, behavioral, and biological aspects of life. The next focus is on enabling all people to take control of their lifestyle behaviors so that full health potential can be achieved. The last strategy used to promote health involves adapting health programs to the special needs of different social, cultural, and economic systems in society. The intention is to optimize health for all.³ A comprehensive approach, along with active participation, will make the most of these Health Promotion strategies.

While concentrating on creating supportive environments, the first strategy used in Health Promotion can be narrowed to focus on advocacy for promoting health in the environmental aspect of life. A focus on this dimension of life must encourage those
involved in healthcare design to construct a built environment with features that work to promote health and healing. Increasing the quality of the public areas where family members, staff, and patients meet would require paying special attention to noise levels, access to natural sunlight, plants and gardens, accessibility and way finding in the facility, and aesthetic quality (artwork, water features, music, etc.). Using this Health Promotion strategy in creating supportive environments will not only positively affect the patients and staff in the healthcare setting, but every person who enters that space.

The next approach used to promote health involves enabling people to take control of the factors which determine their health, also known as “health determinants”. With a focus on “reducing differences in current health status and ensuring equal opportunities and resources”, the WHO states that important requirements for achieving change is through “a secure foundation in a supportive environment, access to information, life skills and opportunities for making healthy choices”. A conscious effort to produce and sustain a supportive built environment is key in taking control over environmental health determinants.

The last method used in Health Promotion that will be discussed entails adapting health programs to the special needs of different social, cultural, and economic systems in society. A focus on the environmental needs of people should adapt to “mediate between differing interests in society for the pursuit of health”. Because of the impact that public healthcare settings have on individuals, families, and communities, it is necessary that these public spaces are constructed to produce favorable health outcomes for all.

In addition to the Health Promotion strategies mentioned, the Ottawa Charter states that there are five priority action areas that support the strategies. One of the five action areas, Creating Supportive Environments for Health, reinforces the importance of determining whether public healthcare settings are promoting health. For this paper, a focus on advocacy for health, enabling people to take control of health status, and adapting to special needs of society were used as a guideline for constructing an evaluation tool used to perform observational overviews of three different public waiting areas in hospital settings. The next section will discuss in more detail what the research indicates as environmental challenges to the built environment, what specific qualities make up the healing environment, and the positive and negative health outcomes of exposure to the specified conditions.
Common Challenges of the Healthcare Setting

Way-finding

The inability to find one’s way in a public healthcare setting can be a major source of stress for patients and visitors. While confusion and failure to find and understand signs not only has negative stress related outcomes, it also comes at a cost to hospitals. Emory University performed a study on one tertiary care hospital and found that the annual costs of way finding were calculated at $220,000. The study concluded that staff, other than information staff, spent more than 4,500 hours giving directions. Proper signage and helpful materials would include kiosks, “you are here” maps, directories, directional signs at key decision points, reassurance signs for long pathways, mail-out maps and written directions. When patients and visitors are able to easily find their way in an unfamiliar place, it gives a sense of control in the midst of an uncontrollable situation.

Light

The quality and quantity of light have major impacts on the body. In a healthcare facility, patients, visitors, and staff are mostly exposed to artificial lighting. This type of lighting is many times deficient in wavelengths that natural sunlight provides. Research from the NHS Estates indicates that inadequate lighting can cause moodiness, cravings for carbohydrates, an increase in systolic pressure, and even depression. Therefore, it is important that natural sunlight, or light that closely mimics it, is present whenever possible. Some of the benefits of natural and high-quality artificial light include better visual acuity, improved motor skills, less physiological fatigue, synthesis of vitamin D, and the overall improvement of task performance. In addition to these benefits, it is important to maintain melatonin production. The hormone melatonin works to control the body’s “internal clock”, or circadian rhythm. Little or no light can disrupt the amounts of melatonin being produced, therefore disrupting the natural cycle between night and day. Proper regulation of melatonin levels will not only maintain physiological functioning, but reduce stress and fatigue. The most natural way of going about this is to expose oneself to adequate natural light.

Aesthetic Quality

Another characteristic of the healthcare environment that can work to alleviate stress is the presence of positive distractions, specifically visually appealing artwork and access to nature. A positive distraction is defined as “environmental-social conditions marked by a capacity to improve mood and effectively promote restoration from stress.” With intentions of conveying messages of hope, peace, comfort, and love, the NHS suggests that paintings, murals, prints, photographs, sculptures, water features, decorative tiles, ceramics, hanging textiles and furniture can achieve this. Research from the NHS Estates indicates that artwork in the healthcare setting can reduce stress, educate, and aid in way finding. In addition to artwork serving as a positive distraction in the healthcare setting, studies indicate that nature can also produce the same positive outcomes. Research Roger Ulrich relating to nature in the healthcare setting reveals that “Gardens in healthcare facilities tend to alleviate stress effectively if they contain
green or relatively verdant foliage, flowers, non-turbulent water, park-like qualities (grassy spaces with scattered trees), and compatible nature sounds (birds, water, breezes). Opportunities to connect with nature within the healthcare setting will bring about feelings of relaxation and reduced anxiety.  

Health Literacy

The time spent waiting in the public areas of a healthcare setting provides an opportunity to take time to become more health literate. Learning about a range of health topics through educating oneself can reduce risk factors that lead to poor health. Health literacy can be easily achieved if a hospital provides resources through access to books, the internet, and wellness centers. An effort to focus on education will work to greatly reduce future illness.

Social Support

It is essential to create a space that will encourage social support within the public waiting areas. A space like this would include adequate moveable seating. It is important for family members and visitors to have control over the ability to create a sense of privacy and accommodate as many people as needed.

Noise

The most significant, unavoidable factor in the built environment affecting the way a person experiences events is the presence of noise perceived as an annoyance. Noise can work as positive stimulation for some people, leading to increased motivation. However, every person and situation is different and not all people experience increased motivation as in response to noises present in the environment. When a noise is perceived as an environmental stressor, a psychological, behavioral, and/or physiological stress response may occur. This response can provoke acute and chronic health consequences.

Psychological changes resulting from noise perceived as stressful and/or annoying can take a toll on a person’s mental health. While changes in brain chemistry occur, some effects of psychological stress include feelings of fear, depression, anxiety, frustration, irritation, anger, helplessness, sorrow, and disappointment.

Stress-causing noise can also result in behavioral changes. According to a study on Noise and Nuisance Policy done by the Department of Environment, Food & Rural Affairs, noise that causes stress can result in social isolation, aggression, sleep disturbances, patient refusal to follow doctor’s instructions, and the excessive use of alcohol, tobacco, drugs, and food. Stress related behaviors due to noise may also result in reliance on sedatives, sleeping pills, and powerful analgesics result from excessive use of prescription drugs.

In addition to the psychological and behavioral consequences of stress-causing noise, numerous studies have concluded that negative physiological outcomes may occur. Research has shown that noise-causing stress can elevate blood pressure, increase heart rate, cause cardiovascular constriction and abnormalities in the electrocardiogram, elevate levels of stress hormones, reduce immune functioning, and cause labored breathing. The researchers who performed these studies also assumed
that noise could be the unidentified stressor leading to changes in the immune system and over-stimulation of the central nervous and endocrine systems. According to Dr. Shirley Thompson, a professor of epidemiology at the University of South Carolina School of Public Health, blood pressure can be increased up to 10 percent due to excessive noise levels. Ultimately, these consequences generate a slower pace of healing and could cause patients to become more ill.

Music

One approach to masking and possibly neutralizing noise is through the introduction of music into the environment. Referring to the effects of music, Don Campbell, the author of *The Mozart Effect*, states that “Music can affect the way we experience the space around us.” Spending time in a waiting area of a hospital may elicit feelings of stress and anxiety, but it is evident that many negative health conditions can be alleviated or eliminated through the presence of music. Used as a positive distraction, the therapeutic and health promoting qualities of music offer both mental and physical effects on the body.

First addressing the mental benefits of music, it has been determined that music can slow down and equalize brain waves. Alpha waves occur in the brain when music with a pulse of approximately 60 beats per minute is played. The alpha waves are linked to heightened awareness, calmness, and general well-being. In addition, music also works to regulate stress-related hormones, specifically adrenocorticotrophic (ACTH), prolactic, and human growth hormone (HGH). Campbell goes on to note that the effects of bright, up-tempo music in a healthcare setting can act to make time appear to pass more quickly.

The physical benefits of music include lower respiration rates, lowered heart rates, decreased blood pressure, decreased muscle tension, and overall improvement of immune functioning. The rhythm of a sound affects respiration and heartbeat in such a way that causes both of these functions to synchronize with the music. Therefore, a slower beat can work to slow respiration and heartbeat. Blood pressure can be significantly decreased by listening to music with an average beat of 55 beats per minute. In a healthcare setting, the presence of music can be a crucial part in maintaining positive body functions, and even enhancing health.
Methodology

“The environment is part of the treatment” - John Wells-Thorpe

The main objective of performing the observational overviews was to evaluate the waiting areas of three different public healthcare settings to determine if these spaces were health promoting. A structured evaluation tool was created for the purpose of this research. The tool used consisted of predetermined measures, based on research defining various qualities that were determined to be imperative in creating health promoting, healing, supportive environments. Organized into a tabular format, data collected during the visit that was not predetermined was also included. The evaluation tool used during the site visits recorded observations as to whether a space reduces or eliminates environmental stressors, has access to nature, gives attention to the senses, provides easy way finding, offers positive distractions, enables social support, and gives a sense of control.

Determining the criteria for the observations was based on work performed by the Robert Wood Johnson Foundation, AIA Academy of Architecture for Health, the World Health Organization, reports from the Design & Health World Congress, 2003, Healthcare Design Magazine’s suggested measures of the healing environment, and the National Institute of Building Sciences Whole Building Design Guide’s measures of the therapeutic environment.

Special attention was paid not only to the built environment, but also to those individuals affected by this space including patients, visitors, and staff. The populations observed included men and women of all ages in public waiting areas served at hospitals in the Reno, Nevada region. The individual’s behavior was recorded on the evaluation tool. During the site visits, the researcher posed as a complete participant, engaging in activities that everyone else was doing, yet keeping the identity (as an observer) hidden so as not to influence any behaviors. The observational positioning technique was multiple positioning. This type of positioning requires an observer to move around each site, taking observations from different areas of each healthcare setting, rather than putting focus on one specific area. To record the information, written notes were taken during the observations and then later consolidated. The time spent at each site ranged from two to two and a half hours. The length of these sessions allowed an adequate amount of time to evaluate the built environment of the public waiting areas, as well as the reactions and behaviors of those experiencing it.

Encounters with life are uniquely experienced by each individual. Could a carefully planned built environment soothe and comfort, alleviate pain and heal? Could this space provide positive outcomes for all people? The research presented suggests that this is possible.
Data and Results

The site visits performed provided valuable data on the status of the built environment inside three hospitals. Names of the hospitals were not relevant to the observations, and are therefore referred to as Hospital A, B, and C. Before the observational overviews were performed, it was assumed by the researcher that each hospital would be very similar, sharing the same positive and negative qualities. This assumption proved to be wrong, as each site visit presented a different mix of qualities.

Hospital A

Data gathered from the observational overview performed at Hospital A provided reason to argue that some healthcare settings are not promoting health. Located in a downtown urban area, the approximately 600 bed hospital serves a population of over 750,000. Hospital A has been undergoing construction since March of 2006. At the completion of the project, estimated to be February of 2007, the facility will have a new parking garage and a 500,000 square foot, 10 story patient care tower. This building will add another 265 beds, making it an 800 bed facility.

Currently, Hospital A offers:
- 24-Hour Level II Trauma center and ER
- Mater/Child Services
- Intensive Care
- Surgical Services
- Interventional and Diagnostic Imaging
- Pharmacy Services
- Laboratory Services
- Behavioral Health and Chemical Dependency Services
- Home Care
- Respiratory Care and Pulmonary Function Lab

Way-finding signs inside and outside the facility were vague. Signs outside directed traffic to areas for parking, yet it was unclear as to which parking garage would be closest to the building of interest. After parking and entering the facility, visitors encounter numerous directories and signs to assist them in determining where to go. The signs only indicated points of interest for the particular floor where they were posted. The facility was large, located on a 29-acre site, and long walks were required to reach the final destination. Signs were posted at crucial decision points, yet the way finding was still confusing. From the lower level, it was not clear how to reach the main floor waiting area; steps or elevator. Thus, locating the main floor waiting area required another long walk and the help of staff passing by. Some hallways and open spaces along the way were cluttered with wheelchairs, unused beds, and extra medical equipment. The long-term renovation process contributed to difficult way-finding.

Once the designated waiting area was located, seating options were ample. The large space was not enclosed or private, but opened to a busy hallway across from the information desk. The waiting area suffered from the noisy hallway traffic, and conversations from the information desk were not only overheard, but inescapable.
The smaller waiting area located opposite of the large waiting area was also open to the busy hallway. Located in the center of the building, neither of these spaces provided access to windows or natural sunlight. Opportunity to access nature was only possible by exiting the facility or entering the small, concrete courtyard. Neither of these options were close to the waiting areas.

The public spaces of Hospital A were perceived as unclean and uncomfortable. There were unidentifiable floor stains and grime. The elevators were also dirty with stains and grime. There were no maintenance workers visible. Overall, the space felt dirty and unpleasant.

Attempts had been made at creating an aesthetically pleasing environment in the main floor waiting area, with positive distractions presented through limited artwork on the walls and plants located around the waiting area. A water feature was installed, but was not working. A television provided as a distraction in the waiting area was regarded as positive for those watching the show of their selection and negative for those not interested in viewing.

Positive distractions in these public waiting areas were limited. A few magazines lay on a coffee table, along with a few pamphlets about the facility. There was no resource room or library. There was no computer for internet access. The only area that could provide a quiet area for contemplation would have been in the chapel. Otherwise, noise was unavoidable. See table 1, page 19.

Hospital B

Serving a population of 20,000 year round and an extra 45,000 in the summer months, Hospital B is an 81 bed facility located in a rural area. Recently remodeled into a long term, skilled nursing facility, it is still in the process of renovations.

Hospital B provides its community with:
- Nutrition Services Department
- Medical Imaging integrated RIS (Radiology Information System)
- 24-hour ER
- Childbirth Center
- Medical/Surgical Unit
- Orthopedics Unit
- ICU
- Occupational Medicine
- Ambulatory Surgery
- G.I. Lab
- Rehabilitation
- Sleep Lab/EEG/EMG
- Social Services
- Home Health
- Hospice

With Hospital B under construction to renovate the existing lobby and other public areas, the existing space posed challenges. The main entrance waiting area was located across from the information desk. The area was small and open to incoming traffic from the entrance. The realization that use of space was a problem became
evident while waiting in the main entrance waiting area. Two men and two women were standing in the middle of the room discussing the health status of a family member admitted to the hospital. The space was very small, and the conversation could be easily heard by everyone in the area. Shortly after they began talking, a doctor entered the area and discussed the details regarding this patient. Information from the doctor could also be heard. The women became very upset and were crying when they heard news from the doctor. This private information was disclosed in this small, open, public space. It was apparent that a private space was needed specifically for patient/family/doctor consultation.

Another waiting area was located between the main entrance of the hospital and skilled nursing area. Renovations had been made to provide a sense of privacy for this waiting area, through the use of partitions. Although still open to hallway traffic, attempts had been made at making a better use of this public space.

Way finding throughout the facility was easy and manageable, due to its small size and new signage. However, one important feature of the hospital that was not easy to find by signs was the resource center. It was located in an older, un-renovated wing of the hospital. The center provided an extensive library containing books on numerous health topics. Internet access was also available for public use. Unfortunately, without proper signs indicating the location of this resource center, the public is unaware of this service.

Aside from the unidentifiable brown stains on the floor of the public elevator, the waiting areas visited were all perceived as comfortable and clean spaces. A member of the maintenance staff was cleaning during the visit. Even though the hospital was going through extensive renovations, it was not yet finished and the second floor was untouched by the renovation project. There was a stark contrast between the first and second floor. The hallways upstairs were cluttered with wheelchairs, beds, and medical equipment. Also, the walls and hallways were covered with a drab grey color. Downstairs walls were covered in a rich gold and tan color with extensive artwork. Upstairs artwork included a graphic poster on how spinal anesthesia is administered while downstairs artwork covered every wall and included pictures of nature, people, and animals. The difference between the renovated downstairs and un-changed upstairs could be described as health promoting verse health deteriorating. See table 2, page 22.

Hospital C

Current trends in hospital design are putting more of a focus on the patient experience. It was apparent that Hospital C was built with this philosophy in mind. Characterized as a private, not-for-profit, medium-sized acute care facility, the hospital was completed in 2002. The new 128-bed facility was two-and-a-half times the size of the previously used facility. The new facility offers numerous services to the community including:

- 24-Hour ER
- Ambulatory Infusion Center
- Oncology Unit
- Surgery Unit
- Obstetrics and Pediatric Wing
- CPR and Wellness Programs
- Nutrition Counseling and Behavioral Health Services
- Inpatient Psychiatric and Addictive Disorder Center
- Home Health and Hospice Services
- Rehabilitation and Physical Therapy
- Cardiac Catherization Center

Hospital C included many characteristics that research describes as components of a healing environment. Water features, an outdoor “healing garden”, access to natural sunlight through large floor to ceiling windows in every area open to the public, live plants, beautiful artwork, access to health information, and easy way finding. Due to the layout of the facility, visitors were not exposed to the traffic of patients and staff working with patients. Medical equipment, unused beds, and spare wheelchairs were nowhere in sight. Both the downstairs and upstairs waiting areas were open and spacious, yet were quiet and allowed privacy. Some conversation could be heard from the check-in and information desks, but noise was kept at a minimum. The public areas provided positive distractions for those waiting, including magazines for entertainment and pamphlets for education on various health issues.

The public waiting areas and public bathroom were very clean in this facility. A member of the maintenance staff was cleaning during the visit. There was no area within public access that was perceived as uncomfortable due to threat of germs and grime.

Surrounded by mountains, the “healing garden” outside provided opportunity to indulge in nature and walk on paved paths to view colorful flowers and greenery. Outdoor seating was available, although there was no shade. Inside the facility, aesthetically pleasing artwork covered the walls with modern art and photographic images of nature scenes.

While many components of a healing environment were present, one important characteristic was not: music. Used as a positive distraction and healing quality for the built environment, music was absent in this seemingly health promoting environment. Incorporating music into this quiet environment would have only improved the experience of time spent in the public waiting areas. See table 3, page 26.
Conclusion

Research indicates that hospital design is putting more of a focus on patient and visitor experience than in the past. The site visits provided insight on the current emphasis put on incorporating the qualities of a healing environment into the hospital environment. The established hospitals visited were being renovated to create this type of atmosphere, yet areas for improvement remained. Further research should be performed on ways existing hospitals can improve the built environment through the use of Health Promotion strategies. Finding ways to further incorporate healing qualities and to define new healing qualities into an established environment would be key in improving the patient/visitor/staff experience.

Based on the observations of the behavior of visitors in some of the waiting room areas, it appeared as though anxiety and stress levels were high. One approach to reduction of stress within the public area would be the introduction of proper music into the appropriate setting. Music was not present in any of the hospitals observed. As stated earlier, the effects of proper music can include lower respiration rates, lowered heart rates, decreased blood pressure, decreased muscle tension, improvement of immune functioning, calmness, and general well-being. In addition, music also works to regulate stress-related hormones and can even change a person’s perception of time and space.\(^3\) Another easy way to provide positive distractions would be in providing a resource center or library available to the public.

With the healthcare industry originally focusing on clinical needs, continued research has proven that there is not one factor at work in promoting favorable health outcomes. Hospitals and other healthcare facilities can not ignore the evidence. It must be understood that health promotion is most effective by means of a holistic approach, with supportive environments proving to have the greatest impact on health.\(^1\)\(^-\)\(^2\)

The research collected and used for this paper related to Health Promotion and the built environment comes from many sources and diverse areas of study including epidemiology, sociology, physiology, and psychology. The studies referenced verify the negative health consequences that can occur when special attention is not paid to the creation of the built environment. Research outlining ways to create a healing built environment and the utilization of Health Promotion strategies in these healthcare settings is of no use if necessary changes are not implemented. A focus on Health Promotion as a set of objectives must be incorporated into the design of healthcare facilities. With the research presented and risk to health declared, it is now the responsibility of everyone to support and promote the institution of healing qualities within the healthcare setting.

As British Prime Minister Winston Churchill stated on the impact of buildings on people, "First we shape our buildings; thereafter, they shape us."
References:


<http://www.american.edu/academic.depts/cas/health/nchf/nchfhpdef.html>


<http://www.niehs.nih.gov/translat/hd/be-conf.htm>


<table>
<thead>
<tr>
<th>Advocacy</th>
<th>Yes/No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do open spaces allow natural sunlight?</td>
<td>Yes/no</td>
<td>The main floor waiting areas are on the interior of the building layout, allowing no sunlight. The upstairs “Courtyard” waiting area has windows, which allows some sunlight. The hallway outside of the “Courtyard” waiting room is lined with windows, allowing plenty of sunlight.</td>
</tr>
<tr>
<td>Are there windows?</td>
<td>Yes/No</td>
<td>In the areas that did have windows, they were not operable.</td>
</tr>
<tr>
<td>-Are they operable?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aesthetic Quality:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Are there live/silk plants?</td>
<td>Yes</td>
<td>Life-like artificial plants placed in and around waiting areas.</td>
</tr>
<tr>
<td>-Beautiful artwork?</td>
<td>Some</td>
<td>Appealing artwork was on some walls of the waiting area, but not all walls had artwork. Still life and nature scenes.</td>
</tr>
<tr>
<td>-Water features?</td>
<td>Yes</td>
<td>Main floor waiting area has water feature on wall, but is not hooked up and working. “Courtyard” waiting area has large floor to ceiling water feature.</td>
</tr>
<tr>
<td>Access to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Outdoor garden?</td>
<td>Yes</td>
<td>Small concrete courtyard, surrounded by the building and windows.</td>
</tr>
<tr>
<td>-Outdoor environment?</td>
<td>Yes</td>
<td>Only by exiting building or entering concrete courtyard.</td>
</tr>
<tr>
<td>Access to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Private area for quiet time/contemplation?</td>
<td>No</td>
<td>The two main floor waiting areas were located off of busy hallways. In either room, there was no opportunity for quiet. The “Courtyard” waiting area was a closed off room and was quieter than the other waiting areas. In addition, near the “Courtyard” waiting area, there was a small, private family/patient/doctor consultation room.</td>
</tr>
<tr>
<td>-A chapel/meditation room?</td>
<td>Yes</td>
<td>A chapel was located on the main floor, down the hall from the main waiting area. A medium sized room, contained 6 wooden pews, a beautiful stained glass window.</td>
</tr>
</tbody>
</table>
Is music playing?  
-If yes, what kind?  
  No  
No music.

Does it smell?  
-If yes, like what?  
  No  
No smell.

<table>
<thead>
<tr>
<th>Enabling</th>
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<th>Comments</th>
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<tbody>
<tr>
<td>Access to information:</td>
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<tr>
<td>- Through internet?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>- Through library?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>- Through pamphlets?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Access to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Television for education/or entertainment?</td>
<td>Yes</td>
<td>A television was on in all three waiting areas that I visited.</td>
</tr>
<tr>
<td>- Computer for education/or entertainment?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Are volunteers (or kiosks) available to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Give directions?</td>
<td>Yes</td>
<td>Information desks were located on the first floor of the main building and the lower level of the Professional Building. The main floor information desk was directly across from the main floor waiting area. Everything going on at the information desk could be heard from the waiting area (phone ringing, conversations between staff and visitors). It seemed that with such a large hospital, these two information desks were not enough. And also difficult to find.</td>
</tr>
<tr>
<td>- Answer questions?</td>
<td>Yes</td>
<td>When able to find an information desk, the staff was helpful and courteous. It is just a matter of getting to the desk.</td>
</tr>
<tr>
<td>Way-finding:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Are there mail-out maps and written directions available?</td>
<td>Yes</td>
<td>A pamphlet with written directions and campus map was located in the main floor waiting area.</td>
</tr>
<tr>
<td>- You-are-here maps?</td>
<td>Yes</td>
<td>One “you are here” map was found near the emergency room. I could not find any others. May have been easier to</td>
</tr>
</tbody>
</table>
-Directories and key entries? | Yes | Although the signage was colorful and very visible, navigation around the facility was still somewhat confusing.
-Directional signs at key decision points? | Yes |
-Reassurance signs for long paths? | Yes |

**Adapting**

<table>
<thead>
<tr>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

-Is the space easily accessible for handicap, elderly, special needs? | Yes |
| Wider hallways and elevators can accommodate. |

-Is the space cluttered? | Yes |
| Many hallways in the facility that I was able to see had spare beds, wheelchairs, and other medical equipment, **not in use**, lining the hallways. |

Perception of cleanliness. | Unidentifiable stains on floor and grime. Elevators were also dirty. No maintenance workers visible. The space feels dirty and makes me feel uncomfortable. |

-Is the seating: |
  -Movable? | Yes |
  Cushioned couches and chairs could be moved in main floor waiting areas. The “Courtyard” waiting area consisted of couches and no chairs.
  -Comfortable? | Yes |

What is the noise? | Doors creaking and slamming, television on random shows and news, conversations form information desk, visitors and staff walking by, passerby conversations, others in waiting area. Very loud and distracting area. The “Courtyard” waiting area is a smaller room, not a large open area. This space is much quieter. |

**General comments:** the main floor waiting area as loud and bustling with staff and visitors. No patients were visible. The waiting area was large enough to seat everyone, but did not provide any privacy as the room was wide open to noisy hallway
traffic and conversations from the information desk. The smaller waiting area located opposite of the large waiting area was also open to the busy hallway. But, not everything was negative in this waiting area. Attempts were made to make the space aesthetically pleasing. A water feature was present, but not running. Plants were present as well as some artwork on the walls. A television was located in each waiting area to provide entertainment. There was no music was playing in any of the waiting areas. Attempts were made to create a health promoting environment, but there was obvious room for improvement.

A woman approaches the information desk, and in an angry voice she demands reasons to why she can’t gain access to her father in the Intensive Care Unit. Before the information desk receptionist can respond, the woman begins yelling and keeps asking why she can’t see him. She begins to cry and yells, “All I want to do is see my father before he dies!!” The receptionist remains calm, calls the nurse station in the ICU, and directs the hysterical woman to the correct area. I wonder why gaining access to see her father wasn’t easier to do. Others in this area could have avoided seeing this outburst if the public waiting area was more private or if there was a private room for family/patient/doctor consultation. Also, there was obviously a lack of communication between staff and family if this woman came to the point of outburst.

The upstairs Courtyard waiting area has a television in the corner, and the sound is turned down very low. This is a quiet, comfortable area. Cushioned benches are placed around the room and in the center of the room. Up against the wall is a large water feature. Water falls from near the top of the ceiling and trickles all the way to the bottom. The fountain is pleasant to watch and soothing to hear.

Table 2 Hospital B

<table>
<thead>
<tr>
<th>Advocacy</th>
<th>Yes/No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do open spaces allow natural sunlight?</td>
<td>Limited</td>
<td>-Most of the public waiting areas had no access to sunlight. The main entrance waiting area</td>
</tr>
<tr>
<td>Are there windows?</td>
<td>Yes</td>
<td>-Walking to the Café, windows line the hallway. Also, in the main entrance waiting area, there is a window next to the television.</td>
</tr>
<tr>
<td>-Are they operable?</td>
<td>No</td>
<td>-Windows, that visitors have access to, can not be opened.</td>
</tr>
<tr>
<td>Aesthetic Quality:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Are there live/silk plants?</td>
<td>Yes</td>
<td>-Live plants are present in most rooms. Mostly potted plants, some thin trees.</td>
</tr>
<tr>
<td>-Beautiful artwork?</td>
<td>Yes</td>
<td>-Artwork is everywhere, on most walls. Diverse collection of art ranging from pictures of nature, to paintings of people and also animals. Sculptures main entrance waiting area and outside.</td>
</tr>
</tbody>
</table>
- Water features? Yes  - Water feature under construction in chapel room.

Access to:
- Outdoor garden? Yes  - Outdoor gathering area provided seating at picnic tables, under shade. Great view of trees, wooden sculptures, and colorful flowers.
- Outdoor environment? Yes

Access to:
- Private area for quiet time/ contemplation? No  - The waiting areas were small and in the open, with the exception of a small waiting area room on the second floor. The main entrance waiting area was an open area where people could watch television and enter the facility. Another waiting area on the way to the café was small and also in the open. Attempts were made to make the space more private by adding partitions, creating more of an enclosed space.

- Chapel/meditation room? Yes  - A small chapel room was under construction. Dim lighting was present, along with a water feature underway. It will prove to be a comforting environment when it is complete.

Is music playing?
- If yes, what kind? No  - The main entrance waiting area had a news channel playing on the television. All other waiting areas either had no music, or the television was on a show.

Does it smell?
- If yes, like what? Yes/No  - The downstairs area of the hospital had no smell. After going up the elevator to the second floor waiting area, a pungent smell was in the air. Not sure exactly what it was, but it was most definitely unpleasant.

Enabling

Access to information:
- Through internet? Yes  - The hospital provided an extensive library that included books and pamphlets on countless health topics. A computer was also available for internet use.
- Through library? Yes
- Through pamphlets? Yes

Access to:
-Television for education/or entertainment? Yes - Television was available in the main entrance waiting area, a downstairs waiting area, and upstairs waiting area.

-Computer for education/or entertainment? Yes - A computer is available in the resource room for internet use.

Are volunteers (or kiosks) available to:
- Give directions? Yes - The attendant at the front desk was available to give directions.
- Answer questions? Yes

Way finding:
- Are there mail-out maps and written directions available? Yes - At the front desk, papers are available that outline the floor plan of the facility.
- You-are-here maps? No - The facility was small enough that this did not pose a problem.
- Directories and key entries? Yes - New signs were adapted recently. They were easy to read and provided arrows to direct people which way to go. Location of a destination was made easy by large signs denoting arrival.
- Directional signs at key decision points? Yes
- Reassurance signs for long paths? No - The hospital was not large and there were not many long paths.

Adapting Yes/No Comments
Is the space easily accessible for handicap, elderly, special needs? Yes - Wheelchairs were available and all areas proved to be accessible. Wide hallways.

Is the space cluttered? Yes - Wheelchairs in hallway and entrance way downstairs. Upstairs, wheelchairs, beds, and medical equipment line the hallways. Very cluttered.

Perception of cleanliness.
- The public waiting areas were clean. The elevator had unidentifiable brown stains on the floor. It desperately needed to be cleaned, but the overall feeling was that the areas were clean and comfortable. A maintenance worker was cleaning during the visit.
Is the seating:  
- Movable?  
  Limited Mobility  
- The seating in all areas was not able to be moved, except in one waiting area where double seat chairs could be slightly adjusted to accommodate a group. Overall, seating was stationary. Areas were furnished mostly with couches and double seat chairs.

- Comfortable?  
  Yes  
- Chairs and couches were cushioned.

What is the noise?  
- The waiting areas with televisions were playing. The waiting areas without televisions were in open areas and all conversations from people passing by and from those in the small area could be heard.

Record Behavior of patients, visitors, staff and any other comments.

Utilization of space seems to be an issue at Hospital B. But, renovations were underway and this problem seemed to have been addressed. I realized that poor use of space was especially a problem in this facility while I was waiting in the main entrance waiting area. Two men and two women were standing in the middle of the room discussing the health status of a loved one admitted to the hospital. I could hear the conversation. Shortly after they began talking, a doctor entered the area and discussed the details. I could also hear what he had to say to the family. The women became very upset and were crying. This private information was disclosed in this public area, for all of those in the waiting area to hear. It was apparent that a private space was needed specifically for patient/family/doctor consultation.

The main floor public areas were seemingly clean. But, when I stepped onto the elevator to travel upstairs, there was a brown mess on the floor. I had no idea what it was. Attention must be paid to this space.

Even though the first floor of the hospital was going through renovations, the difference between the first and second floor was shocking. The hallways upstairs were cluttered with wheelchairs, beds, and medical equipment. Also, the walls and hallways were covered with a drab grey color. Down stairs walls were covered in a rich gold and tan color with artwork hanging everywhere. Upstairs artwork included a graphic poster on how spinal anesthesia is administered while downstairs artwork covered every wall and included pictures of nature, people, and animals. The difference between the renovated downstairs and un-changed upstairs could be described as health promoting verse health deteriorating.
### Table 3 Hospital C

<table>
<thead>
<tr>
<th>Advocacy</th>
<th>Yes/No</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Do open spaces allow natural sunlight? | Yes    | -Large floor to ceiling windows covering front of building allow natural sunlight to pour through windows  
-Views of the mountains and Carson City  
-Architecturally appealing with large round windows giving views of mountains |
| Are there windows?                    | Yes    | -Large floor to ceilings covering front of building                       |
| -Are they operable?                   | No     |                                                                           |
| Aesthetic Quality:                    |        |                                                                           |
| -Are there live/silk plants?          | Yes    | -Live plants were present at every corner, included large trees, small, leafy, green bushes. Live greenery everywhere. |
| -Beautiful artwork?                   | Yes    | -Artwork covering the walls, mostly of nature scenes. Included photographs and modern art |
| -Water features?                      | Yes    | -Large, tiled water feature at entrance of hospital. Water trickled down wall to bed of smooth, round rocks. |
| Access to:                            |        |                                                                           |
| -Outdoor garden?                      | Yes    | -Lower level “Healing Garden” included rock garden with small bushes and colorful flowers. No shade available. |
| -Outdoor environment?                 | Yes    | -Cement pathways outside, railing for ledges and going down stairs, outdoor seating available. Only shade under canopy of main entrance. |
| Access to:                            |        |                                                                           |
| -Private area for quiet time/contemplation? | Yes | -Commons area provides seating on couches or chairs near windows, downstairs and upstairs. The space is so large and open, with so much seating, that it is very possible to find a secluded area. |
Chaplain’s cell phone number available if needed.

Is music playing?
-If yes, what kind?  No  -Although the waiting areas were fairly quiet, soft music playing could have worked as a positive distraction to the noise that was present.

Does it smell?
-If yes, like what?  No

Enabling

<table>
<thead>
<tr>
<th>Access to information:</th>
<th>Yes/No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Through internet?</td>
<td>No</td>
<td>-No computers were available.</td>
</tr>
<tr>
<td>-Through library?</td>
<td>No</td>
<td>-No library or resource center available.</td>
</tr>
<tr>
<td>-Through pamphlets?</td>
<td>Yes</td>
<td>-At the entrance as a person walks in, there is a large stand that provides information on the hospital including upcoming events, and various health issues.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Access to:</th>
<th>No</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>-Television for education/or entertainment?</td>
<td>No</td>
<td>-No television available.</td>
</tr>
<tr>
<td>-Computer for education/or entertainment?</td>
<td>No</td>
<td>-No computer available for public use.</td>
</tr>
</tbody>
</table>

Are volunteers (or kiosks) available to:
-Give directions and answer questions?  Yes  -Information desk attendants were available to give directions and answer questions.

Way finding:
-Are there mail-out maps and written directions available?  Yes  -Pamphlet about the hospital including services offered and campus map available. Located at main entrance and also in magazine racks.

-You-are-here maps?  Yes  -Maps posted outside each elevator with “you are here” markings. Very easy to read and understand.

-Directories and key entries?  Yes  -Every station in public area was marked
-Directional signs at key decision points? Yes -Every key decision point included clear directions to specific locations.

-Reassurance signs for long paths? -Although the hospital was not very large, the signs kept those unfamiliar with the facility frequently updated on location with easy to understand, color coded signs.

### Adapting

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes/No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the space easily accessible for handicap, elderly, special needs?</td>
<td>Yes</td>
<td>-Ramps, guard rails, and wide hallways.</td>
</tr>
<tr>
<td>Is the space cluttered?</td>
<td>No</td>
<td>-In the public areas, there was no clutter (trash bags, extra wheel chairs, medical equipment, etc.)</td>
</tr>
<tr>
<td>Perception of cleanliness.</td>
<td></td>
<td>-The public areas and bathroom were very clean. A maintenance woman was cleaning during the visit. There was no area that made me feel uncomfortable due to threat of germs and grime.</td>
</tr>
<tr>
<td>Is the seating:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Movable?</td>
<td>Yes</td>
<td>-The chairs were light enough to be moved, if necessary.</td>
</tr>
<tr>
<td>-Comfortable?</td>
<td>Yes</td>
<td>-The chairs and couches were cushioned with arm rests. Very comfortable.</td>
</tr>
<tr>
<td>What is the noise?</td>
<td></td>
<td>-Overhead speaker can be heard by all in public areas. The sound is muted, not piercing, but still audible. Voices travel down long hallway. Vocal noise from the information desk, outpatient procedure desk, and imaging desk can be heard all the way down the hallway.</td>
</tr>
</tbody>
</table>
Record Behavior of patients, visitors, staff and any other comments.

The visitors in this facility seemed very relaxed. There was enough space to allow them to have their own area. Some visitors were outside looking at the view, some were quietly reading. There was only one person in the large upstairs waiting area, and he was having a private conversation on his phone.

The only staff that I saw was those working at the desks. I did not see any nurses, doctors, or sick patients. There may have been future patients checking in, still in their normal clothes, but no other patients were visible.

The overall environment was great. There was easy access to private space, nature, and health information. But, during the entire time I was there, nobody spoke to me to ask where I was going or if everything was ok.

A resource center/library did not exist in this hospital, but there were pamphlets on various health issues located in the waiting areas.

**Our Mission**: to enhance the health and well-being of the communities we serve.

**Our Core Values**
- putting patients first
- treating everyone with dignity and respect