

Impact of Environment on Healing Process in Women's Hospitals in Lagos, Nigeria : Medical Practitioners' Perspective

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ABSTRACT

This research investigated the effect of healing environments on patient health outcomes in Women hospitals in Lagos State, Nigeria. It focused on the viewpoints of healthcare practitioners, who play an important role in aiding the healing process to uncover key design elements that improve patient health outcomes. It employed semi-structured interviews with 20 out of estimated study the population of 96 medical practitioners in the six (6) women hospitals, and observation in the investigation. Data were analyzed based on themes and statistical software (SPSS26) for descriptive statistics. Findings revealed that majority of medical practitioners in the hospitals were highly educated females. The buildings which were of diverse configurations, were of two-to-five (2-5) floors Commissioned in the years 1990-2021. Eight elements of the surrounding environment identified by health practitioners that have a positive effect on patients are, a clean surrounding; colours used in hospital; ventilation and quality of the air present; natural and artificial lighting; paintings and decorations; a view of natural elements and interaction with the outdoor; privacy and spatial organization. It further revealed very high-level effect of the identified environmental elements on patients' healing process in the study area. The paper recommended implementation or improvement (as applicable to each health facility) of identified environmental elements influencing healing process of patients to highest standards in the study area.

Keywords: Design elements, evidence-based design, healing environment, women's healthcare facility.

1. INTRODUCTION

There is a growing recognition of the importance of the design of healthcare facilities in the physical and emotional well-being of patients (Zhang, Tzortzopoulos, & Kagioglou, 2019). Research has shown that certain design features can have a positive impact on patient outcomes. There is a significant link between an individual's feeling of coherence and the physical environment's qualities. In recent years, while defining health, the salutogenic rather than the pathogenic perspective is adopted (Tülbentçi & Arcan, 2021). In the context of a women's hospital in Lagos, Nigeria, the incorporation of these principles could be particularly beneficial, as the provision of healthcare for women, particularly in developing countries, is often inadequate (WHO, 2014). By designing a hospital that prioritizes the physical and emotional well-being of women, the facility has the potential to significantly improve the healthcare experience of its patients.

In this study, the subject matter is analysed from the perspective of an immediate environmental impact on the healing process. This method of architecture in hospitals inclines with the salutogenic concept of healthcare. The Salutogenic Model assumes that health is the result of continual interactions between the person and inevitable social, economic, cultural, physical, mental, and biological pressures (Polhius, Vaandrager, Soedamah-Muthu, & Koelen, 2020). The component of fostering good health outcomes, such as high levels of well-being, is

further referred to as health+ (Rice, 2019). Health + is defined as the "process of enabling people to increase control over and improve their health." Health + focuses on the promotion of health improvements to a human's life in a positive way. In the context of the current awareness of the importance of the health and wellbeing of women and in consideration of the effect that buildings have on their users, the role of healing architecture as a means of improving the health and wellbeing of women is significant (Nielsen & Overgaard, 2020). Healing environment aspects are regarded to increase the healing impact among patients if such elements are included in hospital design (Tülbentçi & Arcan, 2021).

This study aimed at investigating the influence of the environment on the healing process of patients in women's hospital in Lagos State, Nigeria with a view to identifying the elements that have positive effects on them. The objectives are to: examine demographic characteristics of medical practitioners in the hospital; describe physical characteristics of the hospitals, identify environmental elements having positive effects on patients; and analyse effects of environmental elements on patients. The scope covers all the women hospitals that are 'standalone and purpose-built' in Lagos State, Nigeria.

2. LITERATURE REVIEW

The expression "Healing Environment" is used to elicit a feeling of unceasing progress in building a healthy and mentally acceptable physical setting (Aripin, 2007). An environment with proper physical attributes will have substantial effects on the patient's prognosis, for example, a shortened stay, less stress, better patient pleasure, and others, not necessarily refer to the curing of the patient but the betterment of their entire well-being. Healing architecture is a design concept in which architecture is involved in the healing process of the user (Sigalingging, Ismanto, & Sudarwani, 2021). The physical environment is understood to influence neurochemical synthesis and discharge, such as oxytocin, a major modulator of emotional and social behaviour (Nielsen and Overgaard, 2020). As a result, women's perception of safety and contentment with their hospital understanding could be greatly altered. The evidence dominantly demonstrates that if we can design our healthcare architecture around such concepts, patient outcomes, quality of experience, and staff satisfaction and effectiveness would all improve dramatically.

Healing, in 2004 according to the Samueli Institute, is "a holistic, transformative process of repair and recovery in mind, body, and spirit that results in positive change, meaning, and movement towards self-realization of wholeness, regardless of the presence or absence of disease." As a result, they coined the term Optimum Healing Environment (OHE) (Ismalia & Djimantoro, 2020). An OHE stimulates the entire human being by taking into consideration the exterior variables of human social relationships as well as the interior components of physical, psychological, spiritual, and behavioral health as seen in Fig 1.

Healing environment parameters started with basics that include (air quality, noise control, thermal comfort, privacy, lighting, and view to nature), these parameters were enhanced based on the evolution and researchers who focused on the healing environment to include security and safety, access to social support, access to nature, option and choice, reduction of environmental stressors and positive distraction (Rafeeq & Mustafa, 2021). One of the earliest examples of healing architecture can be found in ancient civilizations, where natural hot springs and mineral baths were used for medicinal and therapeutic purposes (Malinverni, 2011).

In ancient Greece, nature and music were involved with their patients' care units as they saw a positive effect on their patients (Rafeeq & Mustafa, 2021). In the 1960s Florence Nightingale's outstanding acts in nursing hospital design were greatly influenced, as she discovered the transfer of germs and that patients in hospital rooms heal better in rooms with fresh and clean air, a peaceful environment, and natural lighting. (Emmanuel, Osondu, & Kalu, 2020). Leading

to the first model of the healing environment method. “Environments can have the same effect as placebos” Charles Jenks believes. Placing patients in situations that do not elicit the stress response stimulates the brain to produce natural stress-fighting chemicals. The environment's ability to promote therapeutic aims has been greatly understated. He utilised this principle to establish Maggie's Centres, a network of cancer retreats with over 15 locations in the United Kingdom and across the world (Beggs, 2015).

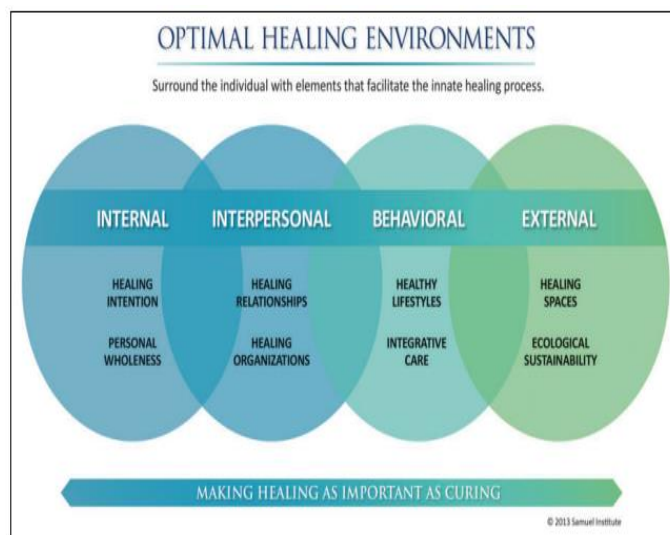


Figure 1: Optimal Healing environmental Framework (Source: (Hamzah, Lee, Kamaruzzaman, & Wahab, 2020))

A healing environment requires an evidence-based design to be successful. It is based on research, and the outputs influence not just broad therapeutic outcomes, but also the efficiency and profitability of office operations, the efficacy of maintenance, and employee utilisation (Ullah , Khattak, & Shah, Analyzing Healing Environment in Post-Operative Units across Selected Hospitals in KP, Pakistan, 2022). The building is seen as a physical place but it also incorporates the 5 senses. Evidence-based design (EBD) is the process of making a key choice utilising evidence from research, studies, and practises in an explicitly informed manner (Rafeeq & Mustafa, 2021). EBD is focused on explaining the nature of research and how research can be integrated into design processes for the construction of healthcare facilities like hospitals (Folmer , Jangaard, & Buhl, 2019). The EBD paradigm, which has recently gained popularity in healthcare design, recognises the effect of the built environment on the functioning of the healthcare facility and the healing of its patients (Pilosof & Grobman, 2021). The existing evidence support making solid conclusions.

Clinical sensory stimuli are experienced by patients, such stimuli are new and unfamiliar, and are presumed to induce an unfavourable mood and raise a sense of vulnerability (Riisbøl & Timmermann, 2020). If designers fail to approach their designs from the standpoint of the patient, they may occasionally construct buildings that elicit unfavourable sensations in patients (Tülbentçi & Arcan, 2021). In the context of EBD these different environmental variables have been shown to have an impact on patients (Brambilla, Rebecchi, & Capolongo, 2019), Audio environment; Visual environment; Safety environment; Way finding systems; Sustainability and Patient, staff and support spaces. A study done by Ulrich in 2008 recognized the relationship between the physical design of hospitals and the key outcomes of the patients. The study established in sections these outcomes; Patient safety issues; other patients' outcomes; and staff outcomes. The elements are shown to affect the patients' outcomes in a healing environment.

2.1. Healing Architectural Elements

Lighting is a key element of the healing environment concept. Beaushmin and Hays' 1996 study discovered that daylight has the power to make the patient feel better quickly, maybe due to the vitamin from sunlight (Ghazaly, Badokhon, Alyamani, & Alnumani, 2022). Optimum daylighting has a major impact on the physical and mental well-being of individuals (Crawford, 2020). These include increasing efficiency, reducing dangerous accidents, increasing mental capacity, and increasing satisfaction and well-being (Husein & Salim, 2020). The study found that bright light treatment had an antidepressant impact that was distinct from the placebo effect, although it required at least three weeks for a substantial benefit to emerge (Huisman, Morales, Van Hoof, & Kort, 2012). The study also found a correlation between indoor daylight conditions and a patient's average duration of stay noting that the morning light tended to be more useful than the afternoon light. However, depending on the colour and amount of light, the kind and colour of these artificial lights may have certain negative impacts (Ghazaly, Badokhon, Alyamani, & Alnumani, 2022). Colours, according to colour medical aid, can impact numerous parts of one's existence, such as our emotions, cognitive state, disposition, and stamina level (Chittanuru, 2022). The notion of colour therapy is based on the neurological behaviour that responds and operates to colours in a predictable and specified manner.

It is critical to avoid creating mazes of routes in complicated structures since they cause confusion, tension, and time loss (Ghazaly, Badokhon, Alyamani, & Alnumani, 2022). According to National Health Services in the United Kingdom, healthcare buildings should be developed and designed to provide exceptional treatment to patients and their families. The spatial design should aid to relax and ease the patient by removing the anxieties of patients and their families, implying that the design idea should be patient-centred (Tülbentçi & Arcan, 2021). Research found that 95% of patients who walked through hospital gardens experienced the therapeutic advantages of being in the hospital (Ghazaly, Badokhon, Alyamani, & Alnumani, 2022). The sense of nature not only speeds up the patient's rehabilitation, but also helps hospital personnel and the patient's family deal with the burden of providing care more successfully (Ghazaly, Badokhon, Alyamani, & Alnumani, 2022). They established in their study that nature in the space, natural analogies, and nature of the space are the three categories of biophilic design methods for healing environments. These pertain to the different strategies of biophilic design with an impact on the patient by providing therapeutic results. According to a study, there is growing evidence that merely observing gardens can alleviate pain (Huisman, Morales, Van Hoof, & Kort, 2012). Plants and gardens are often employed in hospitals to facilitate nature engagement within the healthcare environment, as it reports greater stress reduction (Verderber, Gray, Suresh-Kumar, & Parshuram, 2021). The temperature of the indoor air is significant for patients' experience of thermal comfort. Thermal comfort influences patient recovery, satisfaction with surgical care, well-being, and safety (Shajahan, Culp, & WilliaamsonB., 2019). Airborne pathogens such as bacteria, viruses, and fungus can cause serious health problems. Patients' susceptibility to nosocomial infections is determined by the pathogen's capacity to survive on various surfaces within the facility.

A study done by (Huisman, Morales, Van Hoof, & Kort, 2012) stated that the psychological environment can be influenced by the increased acoustics. According to the study, enhanced acoustic circumstances in the hospital setting lower the incidence of disputes and mistakes. The most significant criteria to consider when evaluating noise and room acoustics are sound pressure level and reverberation time. These characteristics are critical in generating supportive settings, both in terms of promoting hearing and limiting the harmful impacts of noise as it was perceived as one of the main causes of discomfort.

Some materials have also been shown to have a therapeutic impact on building occupants (Ghazaly, Badokhon, Alyamani, & Alnumani, 2022). Wood, for example, is believed to alleviate tension and lift moods. Other than psychological effects, material choices affect

indoor air quality and noise reduction based on the thickness of the material. Whereas carpeting should be considered a potential reservoir of organisms, increasing patient contamination (Huisman, Morales, Van Hoof, & Kort, 2012). Specifications such as thermal mass, thermal storage, and opacity of glazed facades should also be considered when attempting to design a healing environment.

Findings reveal that healing environment design elements have an influence on patients; there are architectural design elements that should be considered when designing a building or creating every environment.

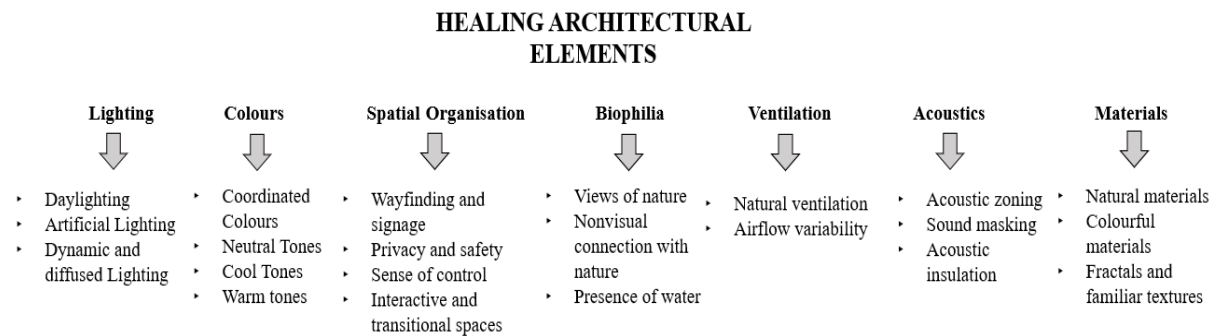


Figure 2: A conceptual framework of Healing architectural design elements

Source: Adapted from (Ulrich, et al., 2008; Ismalia & Djimantoro, 2020; Mahmood & Tayib, 2020; Ghazaly, Badokhon, Alyamani, & Alnumani, 2022 and Ullah, Ali, & Park, 2022).

3. METHODOLOGY

The study adopted the positivist philosophy and inductive approach (Aduwo, Ejale, & Ibem, 2022; Ediae, Egbudom & Abeng, 2022; Ekhaese & Solaja, 2022) for achieving its purpose. The research design was conducted by both Interview and Observation for data collection. Both quantitative and qualitative research techniques were involved (Bartlett, Kotrlik, & Higgins 2001). The number of women healthcare facilities in Lagos, Nigeria was first established. Out of these, selection criteria were employed to identify the six (6) hospitals that are standalone and specifically built as a hospital. From these six (6) facilities (Table 1), a final random selection of three (3) facilities as the sampling frame for the study was done based on multistage random selection. The study population (*N*) of the six (6) women's hospitals medical practitioners was 96.

Table 1: Multi-stage Selection of Women's Hospitals in Lagos State, Nigeria

S N	Buildings	Location	All Cases	Stage 1	Stage 2	Stage 3
1	Ayinke House LASUTH	Lagos State Teaching Hospital (LASUTH), 1Oba, Akinjobi St, & nbsp, Lagos	*	*	*	*
2	Bridge Clinic	66 Oduduwa Way, Ikeja GRA 100001, Ikeja, Lagos	*	*	*	*
3	Lagos Island Maternity Hospital	10 Campbell St, Lagos Island 102273, Lagos	*			
4	Outreach Women's Hospital	6, Muritala Eletu Way, Osapa London. Lekki, Eti-Osa, Lagos	*	*	*	*
5	South Shore Hospital	6b Goriola St, Victoria Island 106104, Lagos	*	*		
6	St Ives Hospital Selected	12 Salvation Rd, Opebi 100212, Ikeja, Lagos	*	*	*	3
			6	5	4	3

*Selected Women's Hospitals

Table 2: Study Population, Sampling Frame, and Sample Size (Women’s Hospitals in Lagos State, Nigeria)

SN	Hospital	Medical Practitioners (No.)	Sampling Frame	Calculated Sample Size	Actual Sample Size
1	Ayinke House LASUTH	21	21	5	9
2	Bridge Clinic	12	12	3	5
3	Lagos Island Maternity Hospital	16*	-	-	-
4	Outreach Women’s Hospital	15	15	3	6
5	South Shore Hospital	16*	-	-	-
6	St Ives Hospital	16*	-	-	-
	Total/Selected	96*	48	11	20

*Estimated Number of Medical Practitioners

The sample size (Table 2) is calculated based on standard sample size formulae, with acceptable margin of error of .03 and alpha levels of .05 for continuous variables, since variables of interest are on 20-point Likert Scale. The first sample size S_f was calculated using standard formula:

$$S_f = t^2 \times s^2 / d^2;$$

Where,

t = value of selected alpha level of .025 in each tail = 1.96 (the alpha level of .05 shows the level of risk the researchers are willing to take that the true margin of error may exceed the acceptable)

s = estimate of standard deviation in the population = estimate of variance deviation for ten-point scale divided by nine (number of standard deviations in the range) = $20/19 = 1.0526$

d = acceptable margin of error for mean being estimated [number of points on primary scale (20x) acceptable margin of error (.03)] = $20 \times .03 = .6$

N = study population = 96

$$\text{Thus, } S_f = t^2 \times s^2 / d^2 = (1.96)^2 \times (1.0526)^2 / (.6)^2 \\ = 3.8416 \times 1.1080 / 0.36 = 11.8236 \approx 12$$

But since the S_f (=12) is greater than five percent (5%) of the study population (96) in Table 1, the second sample size correction formula (where, second sample size is S_s) was applied as follows:

$$S_s = S_f / [1 + S_f / N] = 12 / [1 + 12 / 96] = 10.6667 \approx 11$$

Although the minimum calculated sample size S_s is 11.

A total of 20 practitioners were interviewed, done face-to-face and audio-recorded with the participant's permission. Allowing participants to express their thoughts and opinions freely in some aspect and structured in some others. The respondents were randomly selected based on willingness to participate; after being told the purpose of the study with the assurance of confidentiality of the data to be generated.

4. RESULTS AND DISCUSSION

In this section, data obtained from the field survey were examined. Responses to open and structured questions in interview sessions were analyzed using a thematic analysis and SPSS26 in line with the research objectives. Data from observation and secondary sources were also analyzed. Three hospital facilities were randomly selected for detailed study. Twenty (20) report of interview of respondents gathered which was higher than the minimum corrected calculated sample size of 11 for the study population was considered very satisfactory. They

were made up of doctors and nurses who have been in practice with various experiences. Data were analyzed based on themes and statistical software (SPSS26) for descriptive statistics.

A total of 20 practitioners were interviewed, the data gathered from the interviews were transcribed verbatim and analyzed using thematic analysis. Thematic analysis, like other qualitative approaches, seeks to comprehend a particular occurrence from the perspective of individuals who are experiencing it (Sundler, Linderberg, Nilsson, & Palmer, 2019). Quantitative analysis was used for the structured part of the interview (guide).

4.1. Data Presentation

This research used observation guide to assess the three (3) facilities in Lagos, Nigeria. The facilities selected for the research were Bridge Clinic, Outreach Signature Hospital, and Ayinke House LASUTH. The 3 facilities were chosen randomly.

The first facility selected for the study is the Bridge Clinic in Ikeja which was built on 1700 square meters and does not accommodate inpatients. It is a fertility clinic, based on form follows function, with a series of spaces formed around simple lobbies that allow patients and staff to intuitively navigate the building, where the internal hierarchy of each function is uncompromisingly optimized and the relationship of each function to the spaces supporting and serving it is planned with short distances in mind. Special consideration has been given to the well-being of patients and employees, as seen by the use of soothing coordinated colours throughout the facility and several lounge spaces that promote a pleasant patient experience as seen in Figure 3 and Figure 4.

The second facility is the Outreach Signature Hospital, located in Lekki, it is a women's and children's hospital, it provides specialized care. Consists of 18 variety rooms of single-bedded and double-bedded wards, coordinated coloured spaces, and daylighting and artificial lighting strategies as seen in Figure 5 and Figure 6. The hospital's policy is to give patients and their families the best treatment possible, as a result, considerable care is taken not only with the medical therapy but also with the patient's psychological and physical health providing gym memberships and spa treatment.



Figure 3: Bridge Clinic Front Desk



Figure 4: Bridge Clinic Patient's Lounge



Figure 5: Outreach Signature Hospital waiting Room



Figure 6: Outreach Signature Hospital Emergency Unit

The third facility, Ayinke House LASUTH is located within Lagos State Teaching Hospital. It is a maternity hospital. Consisting of wards and 170-bed capacity and 30 incubators. The indoor environment is designed in a way that enables daylighting within the facility using large operable windows and top lights as well as easy way finding that allows patients and visitors to swiftly reach different departments in hospitals, as seen in Figure 7 and Figure 8.

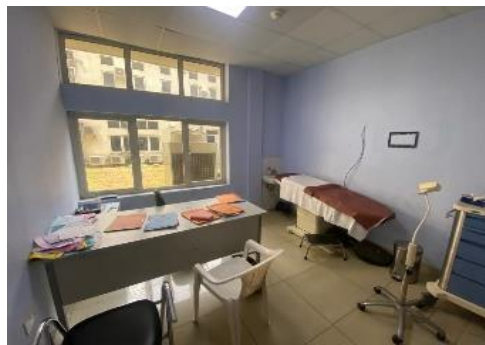


Figure 7: Ayinke House- General Practitioners Office



Figure 8: Ayinke House- Patients' Waiting Room

4.2. Demographic Characteristics of the respondents

The analysis of the demographic characteristics of respondents as shown in Table 3 include gender, age, educational attainment, frequency of visit, time spent per visit and years of practice in their respective facilities.

The result of analysis showed that based on proportional representation, more women were interviewed than men, with women representing 55% of the sample and men representing 45%. Majority of respondents (50%) were between 31-40 years old, followed by 30% between 41-50 years old, 15% over 51 years old, and only 5% between 21-30 years old. This result revealed that majority (80%) of medical staff in Women's hospitals in Lagos State were between 31-50 years old. It is important to note that there were no respondents under 18 or between 18-20 years old.

About educational attainment of the medical staff, the majority (45%) had master's degrees, followed by 30% holding Bachelor's degrees, 15% holding ONDs, and just 10% holding PhDs. It is worth noting that there were no responders who did not have an OND/HND. This result revealed that majority of medical staff in Women hospitals in Lagos State were highly educated people. Most of the respondents (55%) visited regularly, followed by 30% who visited daily, and just 15% who visited rarely. This result revealed that all the medical staff in Women's hospitals in Lagos State were frequent users.

When asked about the time spent per visit in their respective facility the data shows that the majority of respondents (50%) spent 7-9 hours per visit, followed by 25% who spent 4-6 hours per visit, 15% who spent under 3 hours per visit, and only 10% who spent above 10 hours per visit. This result showed that majority (85%) of medical staff in Women hospitals in Lagos State have spent at least 4 hours per visit to the hospital. On years practiced in their respective facility, majority (35%) have worked 3-4 years, followed by 5-6 years (25%), then over 6 years (20%), then 1-2 years (15%) and finally the least percentage (5%) being less than a year of practice. This result revealed that majority (80%) of medical staff in Women hospitals in Lagos State had practiced in their respective facility for at least three (3) years.

4.3. Physical Characteristics of the Selected Hospitals

The result of examination of Physical Characteristics (Figures 3 to 8) of Women Hospitals in Lagos State, Nigeria revealed that they were Inpatient and Outpatient building facilities of diverse configurations covering Areas of 1300-6800 m², 2-5 Floors, commissioned in the Years 1990- 2021 and are therefore of Ages 40 Years or Less (Table 4).

4.4. Physical Characteristics of the Selected Hospitals

Environmental Elements having Positive Effects on Patients of the surrounding elements identified by health practitioners that have positive effect on patients, the following results were gathered from interview analysis: According to the respondents it was deduced that the immediate environment has a complex effect on the healing and recovery process of the patient. Many nurses stated that as Florence Nightingale had said "the very first requirement in a hospital is that it should do the sick no harm" stating that healing starts in the surrounding environment. Some had made mention of the term milieu, which is a therapeutic approach to medical care through a structured environment and community focused on developing healthier lives. Healing is beyond seeing a doctor as it encompasses the physical, psychological, mental and social aspects of life. The elements of the surrounding environment identified by health practitioners that have a positive effect on patients is shown in Table 5.

Table 3: Demographical information of respondents

Variable	Classification	Frequency	Percentage (%)
Gender	Male	9	45
	Female	11	55
	TOTAL	20	100
Age (Years)	< 18	-	-
	18-20	-	-
	21-30	1	5
	31-40	10	50
	41-50	6	30
	>50	3	15
	TOTAL	20	100
	Educational Attainment	SSCE	-
OND/HND		3	15
BSc		6	30
MSc		9	45
PHD		2	10
TOTAL		20	100
Variable	Classification	Frequency	Percentage (%)
Frequency of Visit	Once	-	-
	Rarely	-	-
	Occasionally	3	15
	Frequently	11	55
	Daily	6	30
	TOTAL	20	100
	Time Spent per Visit (Hours)	< 3	3
4-6		5	25
7-9		10	50
> 10		2	10
TOTAL		20	100
Years of Practice in facility	<1	1	5
	1-2	3	15
	3-4	7	35
	5-6	5	25
	>6	4	20
	TOTAL	20	100

Table 4: Physical Characteristics of Women Hospitals in Lagos State, Nigeria

Hospital	Type	Building Area (m ²)	No. of Floors	Operation	Year Commissioned	Building Age (Year)	Configuration
Bridge Clinic	Fertility Clinic	1700	2	Outpatient	1990	31-40	Detached Block
Outreach Signature Women Hospital	Women Hospital	6800	5	Inpatient & Outpatient	1990	31-40	Clustered
Ayinke House (LASUTH)	Maternity Hospital	1300	4	Inpatient & Outpatient	2021	10 or less	Modular
All	Women Hospitals	1300-6800	2-5	Inpatient & Outpatient	1990-2021	40 or less	Diverse
Mean		3267	3	-	2001	21-30	-

Table 5: Elements of the Surrounding Environment identified by health practitioners

SN	Elements of the Surrounding	Frequency (20)	Percent (%)	Ranking
1	A clean surrounding	18	90	1 st
2	Colours used in hospital	13	65	2 nd
3	Ventilation and quality of the air present	13	65	2 nd
4	Natural and Artificial lighting	9	45	3 rd
5	Privacy	9	45	3 rd
6	Spatial organization and interaction	9	45	3 rd
7	Paintings and decorations	7	35	4 th
8	A view of natural elements and interaction with the outdoor	4	20	5 th

Majority of the respondents as seen in Table 5 Items 1 to 3, emphasized that when implemented properly within the hospital they have positive impacts on the recovery and healing experience of the patients, stating effects like Relaxation, Comfort, and Reduced stress levels. These in turn facilitate a better healing experience which speeds recovery. They further explained that these elements impact the patients even subconsciously; and the lack of them in turn have a negative effect on the patients. When asked about the presence of these elements in their respective hospital facilities many indicated that they are present, some are of adequate levels, and some require better maintenance systems.

4.5. Extent of Environmental Elements Effects on Patients

On the basis of the elements stated by the respondents they were in turn asked to rate the level of effect of the environment on a patient's healing process, the level of positive reaction (consciously and subconsciously) as well as the level of negative reaction seen in patients to these previously mentioned elements, all on a scale of 1 to 20, where 1 is the "least rating" and 20 is the "highest rating" to yield a clear definite result.

As seen in Table 6, that summarises the findings and inferences drawn based on the pre-established scales categorisation for descriptive purposes. Table 7, the shows the Effect of the environment on patients' healing process in relation the identified elements revealed very high level by respondents. Very high level of positive reaction was seen in patients both consciously and subconsciously. A high level of negative reaction was seen in Table 7 according to the respondents.

Table 6: Table of Inferences

Scale	Inference
1-4	Very Low
5-8	Low
9-12	Average
13-16	High
17-20	Very High

Table 7: Environmental Elements Effects on Patients

	Frequency (20)	Mean Score (20.00)	Mean 20	Inference
Effect of the environment	20	17.82	18	Very High
Extent of positive reaction (consciously and/or subconsciously)	20	17.53	18	Very High
Extent of negative reaction (consciously and/or subconsciously)	19	15.2	15	High

5. CONCLUSION

This study investigated the effect of healing environments on patient health outcomes at women's hospitals in Lagos State, Nigeria. The study aimed to uncover essential design features within the immediate surroundings that improve patient health outcomes by concentrating on the viewpoints of healthcare practitioners. To collect data from medical practitioners working in three women's hospitals in Lagos, the researchers used a combination of semi-structured interviews and observations. The physical characteristics of the hospitals, which spanned from two to five floors and were built between 1990 and 2021, gave insight into the various arrangements of the institutions.

The medical practitioners found eight healing elements in the immediate environment that have positive effects on patients' recovery processes, although only three of them were identified by the majority. Respondents emphasized the importance of these aspects in establishing a healing environment that promotes relaxation, comfort, and lower stress levels, allowing patients to have a better healing experience and quick recovery.

The study found that the identified environmental variables had a very high level of influence on patients' recovery processes in the study location. Patients had extremely good reactions to these aspects, both consciously and unconsciously. However, there was a significant increase in negative emotions, emphasizing the importance of careful design considerations to ensure the healing environment ideally promotes patients' well-being.

According to the research, the concept of healing environment extends beyond the cure of illnesses to improving patients' general well-being. Women's hospitals in Lagos may greatly enhance patients' outcomes, quality of experience, and staff satisfaction and effectiveness by implementing evidence-based design principles and concentrating on patient-centered approaches.

Finally, the implementation or improvement of the identified healing architectural design elements in women's hospitals in Lagos, Nigeria, is strongly recommended to uphold the highest standards of patient care and create healing environments that positively impact patients' health and well-being.

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