

# ARCHITECTURE AND ITS ROLE IN THE LIGHT OF THE PNH: AN INTEGRATIVE REVIEW

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#### **ABSTRACT**

Introduction: Through the constitution of public policies focused on social security, humanization and health practices gain strength, giving rise to the National Humanization Policy (PNH). The space intended for health care is no longer just the place to be treated, but the place where it will be cared for in a more integral way, where the environment reveals itself as an intrinsic factor in the health-disease process, requiring attention to the hospital architecture. Objective: To analyze the parameters and strategies of the environment, as a device for the humanization of spaces and relationships, established by the National Policy of Humanization contemplated in hospital environments. Method: This is an integrative review whose proposition was to carry out a bibliographic mapping using descriptors inserted in the Decs Mesh. Results and Discussion: The 22 related studies presented evidence of the importance of humanizing hospital environments and how the NHP, from the perspective of the environment, was implemented and put into effect in Brazilian hospital environments. Pointing out the significant interference of the environment and its reliability in the comfort and recovery of hospitalized patients. Conclusion: It can be seen that the advances in the hospital infrastructure linked to the PNH are few, given the years of its implementation, evidencing failures and deficiencies in the process of evolution of architecture to the health-disease process.

**Keywords:** Hospital Architecture. Humanization. Ambience. Hospital Environments.

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#### INTRODUCTION

Public Policies are understood as a group of strategies, devices, programs, projects and actions that are materialized by the State to promote the interest of a collectivity. Based on the current cultural, political and institutional conceptions, they can have distributive, redistributive and regulatory characteristics, which will impact the construction of a society differently.

Fleury and Ouverney (2008) point to the emergence of the so-called Welfare States, or social welfare state, as social protection apparatuses, institutionalized with the purpose of neutralizing the effects of modernization, through distributive policies aimed at the well-being of a population excluded by industrialization. It should be emphasized that it is the State that regulates public social policies, however, it is a basic condition that it is able to ensure its citizens the hard-won rights, that it favors economic development, that it absorbs labor and that it allows financing social protection, whether through public policies, social security or even the market.

It was from the axis of social security and interface between state/society and market adopted by the Constitution of the Federative Republic of Brazil, enacted in 1988, that a public social health policy was constituted, through the Brazilian Unified Health System (SUS) (SOUZA; COSTA, 2010).

The SUS is governed by doctrinal principles of universality, equity and integrality in health services and actions (BRASIL, 1990a), as well as guidelines for its operationalization (decentralization of services, regionalization and hierarchization of the network and social participation/control). In the trajectory of more than 31 years, between advances and setbacks, it is possible to observe the legacy and impact of the SUS on the population, through the various policies and programs implemented, just a more careful look at health practices.

One of the public health policies formulated to fill and fill gaps in the SUS, the National Humanization Policy (PNH or Humaniza-SUS), brought humanization to the debate on health practices. Elaborated by non-normative actions, that is, without the character of law, since it did not use ordinances for its propositions or even relied on transfers of resources, it came to foster practical actions to the principles of the SUS, in the universality of access, in the integrality of care and in the equity of health service offerings, as reinforced by Toledo (2004). Its guidelines, strategies, devices and bold practices proposed changes in the models of care and management in the SUS, especially in the



environment, in the work relations between managers and health workers and the needs of users.

The term humanization has its origin in the humanist philosophical current of valuing the human essence and its potentialities, it brings the notion of equality and dignity, which are principles rooted in the Universal Declaration of Human Rights. It is a concept used in health since the 1960s and introduced by the World Health Organization (WHO) in declarations of patients' rights.

The thought that an individual is not an isolated being, he is a social being, and having health or recovering it also depends on the emotional and cultural aspects, his family, his living conditions and the place where he lives has generated a great change. With this definition, the space intended for health care is no longer just the place to be treated, but the place where it will be cared for in a more comprehensive way, "[...] a space in which the patient can apprehend a healthy spatial appropriation and be the protagonist of his own treatment". (PIZZOLATO, 2014, p.188).

The Ottawa Charter, on the other hand, complements the importance of the community in the quality of life of the individual, as well as the encouragement of participation and social control. This movement initiated transformations for the architectural typology of hospitals, because: "[...] emphasizes the patient, incorporating technical, formal, functional and economic needs capable of taking advantage of a space that explores to the maximum the potential for autonomy and well-being of the members involved" (PIZZOLATO, 2014, p.188).

The PNH, created in 2003, proposes the creation of an efficient model for the SUS, reinforces the principles of access, universality, comprehensiveness and equity, and is one of the strategies to achieve the qualification of health care and management. It has principles, guidelines and its operationalization takes place through methods and devices that, when applied by managers, workers and users, ensure that physical structures, power relations, work processes and affection do not produce or reproduce dehumanization in health.

In turn, it integrated the concept of health environment as a welcoming and healthy space in which service users and workers have their social bonds facilitated, where care relationships are humanized and problem-solving (BRASIL, 2004).

According to Toledo (2014), this concept incorporated by the PNH is not foreign to architects and is of particular interest to them. It has been extensively studied since 1960 by



researchers in the area of environmental cognition and behavior and confirms that the PNH deepens the concept of ambience in architecture.

Within the PNH, the concept of ambience is "the treatment given to the physical space understood as a social, professional and interpersonal relationship space that should provide welcoming, problem-solving and human attention" (BRASIL, 2010, p. 05)

In the process of humanization of SUS health spaces, architecture is configured as an important piece, based on the development of projects that provide comfort conditions that favor the performance of the health team's activities and stimulate the well-being of service users. The ambience in a hospital environment goes beyond the physical space, it provides both the good use of the space, in a welcoming way, and the relationship between it and the people who pass through it, even knowing that "[...] there will be times when the most pleasant place in the world will not be able to expel our sadness or misanthropy" (TRINDADE BESTETTI, 2014, p. 604).

The PNH advises towards developing an architecture that contributes to stimulating the physical and emotional well-being of its user, a more humanized coexistence, reducing the predominance of hostile and impersonal aspects of a hospital environment. This architecture needs to be allied to the establishment of bonds, exchange relationships between health professionals and users in therapeutic interventions.

It is up to the architect to seek shapes, volumes, dimensions that translate this possible well-being. And in line with the concept of humanization, the mission of architecture is to create sensitive and stimulating spaces that favor the development of human existence (BESTETTI, 2014). Its focus is on the transformation of spaces so that the work processes occur in the spirit of a team, in shared management, with the comfort of the physical structure, which acting together and being used, in the end, will generate individual and collective experiences and discoveries of those involved and enable health in accordance with the principles and guidelines of the SUS.

Therefore, a project in the health area, in addition to functional needs and legislation, which follows strict instructions recommended by regulatory standards and its own legislation, must consider the perception of what a given environment causes in the user, in accordance with the concept of environment; which considers the subjective values obtained from lived experiences, which will bring meanings to the physical space in a positive way or not. Thus, shapes, color, light, lighting, art, kinesthesia, accessibility and privacy are elements that permeate architectural projects in line with the ambience, as they



qualify and modify physical spaces and stimulate the perception of the environment by those who use it.

According to Pizzolato (2014), there is evidence and scientific evidence that validates the good results in the treatment of patients who are in physical spaces that seek to meet their needs.

From this perspective, this project brings the opportunity to deepen the contributions that the National Policy for the Humanization of the SUS (PNH) has brought to the development of health spaces, since its inception in 2003.

This study is relevant, since deepening the knowledge about the effects that this public policy has promoted in recent decades in health spaces, particularly in hospitals, points to the importance of this project to be carried out in the graduate program of Public Policies and Local Development, especially to understand the relationship between the physical spaces built and the subjective experiences that accumulate in the current moment of crisis health and humanitarian.

Thus, the objective is to analyze the parameters and strategies of the environment, as a device for the humanization of spaces and relationships, established by the National Humanization Policy contemplated in hospital environments.

### **METHOD**

This is an integrative review study whose proposition was to carry out a bibliographic mapping and aimed to map the main concepts of the area of knowledge of this study, in addition to "[...]examine the extent, scope, and nature of the investigation, summarize and disseminate the research data, and identify existing research gaps (Arksey; O'Malley, 2005)", according to Cordeiro and Soares (2019, p.06).

To clearly construct the guiding question, the acronym PCC (Population, Concept, Context) was used, usually recommended in a scoping review, according to Coelho *et al* (2021), being Population – the hospital architecture/ Ambience, Concept – Humanization and Context – the hospital environment. From this structuring, the research question was: How are the parameters and strategies of the environment as a device for the humanization of spaces and relationships established by the National Humanization Policy contemplated in hospital environments?

From this structuring with the acronym PCC, the descriptors were also defined: hospital architecture, humanization and hospital environments, which followed the theme of



the research and were listed through the DeCS/MeSH vocabulary. It is noteworthy that the word Ambience, initially defined as a descriptor for searching in databases, was replaced by hospital architecture, because it was not found in the records of the aforementioned thesaurus.

Table 1 below presents the step-by-step process regarding the acronym PCCo, presenting the extraction, conversion, construction and finalization of the use of the descriptors for search.

Table 1 – Database search structuring. Vitória, ES, Brazil, 2022.

			_
	Р		Со
	Hospital	Humanization	Hospital environment
Extraction	Architecture		
Conversion	Hospital Design	Humanization of	Health Facility
	and Construction	Assistance	Environment
Construction	Hospital Design	Humanization of	Health Facility
	and Construction	Assistance OR	Environment OR Health
	OR Hospital	Humanization OR	Centers OR Hospital
	Reform	Humanization of Hospital	
		Care OR National Program	
		for the Humanization of	
		Hospital Care	
Use	(Hospital Design and Construction OR Hospital Reform) AND (Humanization of		
	Assistance OR		
	Humanization OR Humanization of Hospital Care OR National Program for the		
	Humanization of Hospital Care) AND (Health Facility Environment OR Health		
	Centers OR Hospital)		

Source: Prepared by the authors, 2023.

A estruturação de busca, nas bases de dados foram construídas e utilizadas com o os boleadores OR e AND a partir da construção dos descritores em inglês (Hospital Design and Construction OR Hospital Reform) AND (Humanization of Assistance OR Humanization OR Humanization of Hospital Care OR National Program for the Humanization of Hospital Care) AND (Health Facility Environment OR Health Centers OR Hospital).

The search for relevant studies was initially carried out in the following electronic databases: MEDLINE via Pubmed, MEDLINE via Virtual Health Library – VHL, LILACS, SciELO - Scientific Electronic Library Online and finally, to complement with gray literature, Google Scholar; The bibliographic survey took place from April to August 2022.



Table 2 - Database search strategies with Boolean operators. Vitória, ES, Brazil, 2022.

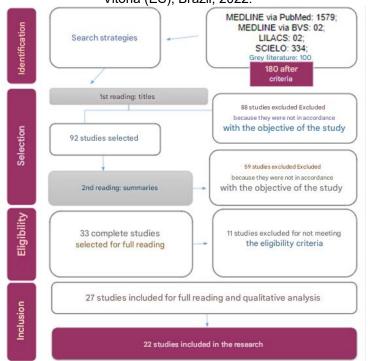
Base	Strategy
MEDLINE via PubMed	Hospital Design and Construction AND Humanization of Assistance AND  Health Facility Environment.
MEDLINE via Virtual Health	(Hospital Design and OR Hospital Reform) AND (Humanization of Assistance OR
Library (VHL)	Humanization OR Humanization of Hospital Care OR National Program for the Humanization of Hospital Care) AND (Health Facility Environment OR Hospital)
LILACS	(Hospital Design OR Hospital Reform) AND (Humanization of Assistance OR Humanization OR Humanization of Hospital Care OR National Program for the Humanization of Hospital Care)
SCIELO	(Hospital Design and OR Hospital Reform) AND (Humanization of Assistance OR
	Humanization OR Humanization of Hospital Care OR National Program for the Humanization of Hospital Care)
Literature cinza	Strategy
Google Scholar	(Hospital Design OR Hospital Reform) AND (Humanization of Assistance OR
	Humanization OR Humanization of Hospital Care OR National Program for
	the Humanization of Hospital Care) AND (Health Facility Environment OR Health Centers OR Hospital)

Source: Prepared by the authors, 2023.

To ensure the broad representativeness of the samples, all scientific articles published in Portuguese and English, free of charge and available in full, with the descriptors listed above, published in the period between 2005 and 2020, were considered inclusion criteria. The exclusion criteria were articles whose titles did not indicate the theme, those found in duplicate, outside the defined period and that did not address the proposed theme. The flowchart below shows each step of the inclusion of the articles (Figure 1).



Figure 1 – Flowchart of the selection of publications for the scoping review, based on the PRISMA model. Vitória (ES), Brazil, 2022.



Source: Prepared by the authors, 2023.

To enable data collection, through the reading of the selected articles, a table was initially elaborated, entitled knowledge matrix (FERENHOF; FERNANDES, 2014), containing the following information: title; authors; year of publication, language and country of publication; objective, method, and main findings and results, in order to obtain relevant information for the final sample. And after a new reading and due guidance, the table initially called the knowledge matrix, was renamed to the results table, with more compressed information according to tables 1, 2, 3 and 4, since it was separated by categories.

#### **RESULTS**

The 22 related studies presented evidence of the importance of humanizing hospital environments and how the National Humanization Policy (NHP) of the SUS, from the perspective of the environment, was implemented and enforced in Brazilian hospital environments.

Some observations are important about the articles in the database, to integrate this study: of the 22 articles, 15 (68%) were developed in Brazil and of these, 09 (60%) mention or discuss the PNH or some aspect related to the environment and there were a total of 07



articles from other countries, which discuss the humanization of health spaces and about elements of projects that are present in the axis of ambience known as comfortability.

Table 1 - Interference of the physical space in the health status of the hospitalized patient.

	of the physical space in the health st	
AUTHOR	OBJECTIVE	NOVELTIES
MOURA; MOREIRA, 2005	To describe the environmental factors considered as determinants of well/malaise of the chemotherapy unit from the perspective of the clients and to analyze the environmental factors considered by the clients as determinants of well/malaise, as indicative for the nurse in the management of the environment.	The study, from the perspective of the patients, carried out at the Chemotherapy Unit of the Hosp. Geral de Bonsucesso in Rio de Janeiro, suggests that improvements in the physical environment interfere with care, demand availability of physical structure and financial resources.  It brings the mistake of making nurses responsible in the search to find ways to face the limitations due to failures in the physical environment, to serve the clientele as much as possible, even with difficulties and eventual failures in their physical environment, finding ways to face the limitations  It is evidence that the loving attitude of the health team, particularly the nursing team, as care provided to the client is fundamental to ensure well-being for all.
BOCCANERA; BOCCANERA; BARBOSA, 2006	To analyze the perceptions of professionals and patients regarding the colors used in the intensive care environment, identifying those considered pleasant and unpleasant.	It suggests that the application of colors and their different shades in the ICU sector, considering that colors with their wave fields can contribute to the well-being of people who are in contact with this environment.
FREITAS <i>et al.</i> , 2013	To identify the constituent elements of the concept of environment in the official documents of the National Humanization Policy and to analyze the relationships between them and the promotion of the care environment recommended by nursing.	The results of this research ratified that the environment is a central concept worked on in the PNH documents. It brings the environment as a tool for promoting care and welcoming, in addition to considering comfort fundamental for the promotion and recovery of people's health.
ANDERSON, 2018	To deepen the discussion around the ethics of hospital architecture applied to the current building codes and guidelines.	It discusses how architects should use ethics to develop architectural projects, evidencing the well-being of the patient. While design cannot necessarily treat disease, it can be an important tool in preventive and therapeutic care strategies.
DRAHOTA et al., 2012	Summarise the best available evidence on hospital settings in order to help those involved in the design of hospital settings make decisions that benefit patients' health.	Overall, it appears that music can improve patient-reported outcomes such as anxiety; however, the benefit to physiological outcomes and medication consumption is less supported.  There are few studies to support or refute the implementation of physical changes, and with the exception of air quality, the included studies demonstrated that physical changes in the hospital environment at least did not cause harm.



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FRICKE et al., 2018  HEIDEMANN et al., 2011	To present the state of scientific knowledge on the influence of architectural and environmental factors on convalescence in hospitals and focuses mainly on their effects on recovery from psychiatric illnesses.  To identify the main factors that generate stress in patients hospitalized in a coronary unit and the influence of noise level on their perception of stress.	Psychiatric patients benefit from space structures that strengthen appropriate social interrelationships, but no data are available on special architectural needs to support therapy in child and adolescent psychiatry in general and specific therapeutic issues in particular.  Patients hospitalized in CCU have a greater perception of stress, which decreases over the first three days of hospitalization In the present study, the noise level did not explain the ICU Stressors Scale score and the patients did not mention those related to high
		noise levels as the main stress-generating factors.
NILSSON et al., 2020	Summarize, categorize, and describe published research on how delivery room design influences maternal and neonatal physical and emotional outcomes.	The results of this review demonstrate limited evidence on delivery room design that promotes the health of parturients and their babies in hospital delivery wards. However, four physical themes have been identified to positively influence maternal and neonatal physical and emotional outcomes: means of distraction, comfort, and relaxation; raising the temperature of the delivery room; characteristics of familiarity and diminish a technocratic environment.
WALKER, 2016	To analyse the advantages and disadvantages of the UK's NHS hospital policy of single-room with attention to its effect on the patient and staff experience, as well as on the delivery of care.	It defends the single room for patients as an innovation, adaptability and flexibility, since some elements of comfort contribute to the patient experience, by promoting better privacy and confidentiality.
GARCIA; RODRIGUES; LIMA, 2013	To share the experience that occurred in a reference hospital in oncology in the State of Maranhão and to present initiatives that helped in the development of the PC Service.	Humanization is essential and indispensable to promote well-being for patients in palliative care.  The architecture of the hospital environment has been shown to contribute to the patient's quality of life, through welcoming and cozy environments for PC patients.
VIANNA; BRUZSTYN; SANTOS, 2008	Discuss the relationship between health, disease and the hospital space, exposing points.	It describes the physical environment as an instrument capable of strengthening health processes and entailing positive consequences for users. It highlights aspects of the behavior of individuals and institutional policies that correspond to certain environments and/or architectural elements: control of mobility and social interaction/privacy; social support; access to nature and distractions and satisfactory physical conditions of temperature, lighting, noise, odors.

Source: Prepared by the authors, 2023.



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Table 2 - Aspects of the environment associated with humanization in hospital care.

		ated with humanization in hospital care.
AUTHOR	OBJECTIVE	NOVELTIES
BRITO; CARVALHO, 2010	Identify the concept of humanization and raise the aspects that contribute and hinder the humanization of hospital care, according to the opinion of cancer patients.	The main factors that facilitated the humanization of care involved: affection, sympathy, understanding of the moment, respect and quality of care.  The most cited negative factors were the bad mood of the professionals, noise, sleep interruption and excessive trips to the patient's room.
PROCHET; SILVA, 2012	To identify the environmental factors that interfere in the communication of the health professional with the elderly.	The most cited environmental factors that interfere with communication with the elderly were: noise and noise, occupation and organization of space, luminosity, colors, temperature and ventilation, and hygienic conditions. Using environmental factors as an effective possibility of care is important and real, as it interferes in the well-being of the elderly, in their recovery and in the relationship between the professional-elderly binomial.
BROOK; GOMES; THOFEHRN, 2014	To identify and analyze the production of knowledge from the perspective of the environment, that is, the strategies that health institutions have implemented to humanize the care of hospitalized children in the pediatric unit.	The strategies found in this study, by contributing to improve the care provided to hospitalized children, show the environment. The author discusses the lack of interest of researchers in investigating the humanization of the hospital environment.  Considering the decline that has occurred in recent years and the low quantitative expression of publications on the theme of humanization of the pediatric environment, the need for investment in research and publications is emphasized so that the PNH is not invisible
BERGAN et al., 2009	To investigate the aspects of architecture and built environment in the humanization process of the pediatric hospital and its influence on the recovery of hospitalized children.	In this study, the issues related to humanization are found only in the periphery, suggesting the incipience of the process of implementing ministerial policies. The contribution of architecture to child health proved to be essential in this work, and allowed an analysis of the problems of the environment.
BATES, 2018	Understand the implementation of Humanization in hospital environments through the meaning of humanization and deepen the language of "humanization" and its history.	It discusses the need to deepen the concept of humanization and discusses the technology that propelled humanization in health was technology, as a way to avoid dehumanization.

Source: Prepared by the authors, 2023.



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Table 3 - Perspectives of professionals in the hospital environment, humanization and the work environment.

<u>ble 3 - Perspectives</u>	of professionals in the hospital env	<u>/ironment, humanization and the work environme</u>
AUTHOR	OBJECTIVE	MAIN RESULTS
NETO et al., 2011	To measure the noise levels of an intensive care unit in the city of Recife and to evaluate its perception by the professionals of the unit.	The PNH is not mentioned, but it considers the humanization of hospital care and the element of comfort for health professionals.  Noises. Professionals perceive the environment as noisy, but only 50.7% of them believe that this exposure is harmful to health. Finally, it is evident that high noise levels in the ICU interfere with the health of professionals and patients.
SILVA <i>et al.</i> , 2011	Measure noise levels in different shifts in the laundry of Hospital São Paulo (HSP) and provide clarification on hearing health and conservation to employees and supervisors of the sector.	The element of comfort: noise has been studied in service sectors, where the humanization of spaces is little observed. The noise levels found ranged from 70 to 101 dB SPL, which were well above the allowed
NASCIMENTO et al., 2015	To know how nursing professionals perceive the environment of a hospital emergency for the care of the elderly.	The analysis of the nursing professionals' perception of the ambience of a hospital emergency for the care of the elderly showed that they recognize several weaknesses in the care. Further reports on: Work overload of nursing professionals, as well as inadequacies of the physical structure for the care of the elderly population, which in turn hinders nursing actions and limited independence of the elderly within their potentials
DODOU et al., 2017	To know the perception of health professionals about the work environment of the delivery room and its interface with the humanization of care.	The favorable conditions in the work environment studied that provided well-being and satisfaction of the professionals were: the integration of the team in the delivery room, the competence of the professionals and the humanization policy adopted by the institution to guide the care.  And the difficulties associated with deficient physical infrastructure, lack of materials and equipment maintenance and, in some cases, difficulty in working as a team, in addition to the resistance of some professionals to act in accordance with the institution's humanization policy.
NETO et al., 2013	To describe the perceptions of nurses in an emergency room for adult patients about humanization and reception with risk classification.	Professionals understand the expanded concepts of humanization and welcoming. With regard to the user embracement process, it is noticeable that the group of professionals studied states that it is not limited only to receiving well, but also to offering the guarantee of complete, problemsolving and continuous care.

Source: Prepared by the authors, 2023.



Table 4 - Architecture and health.

AUTHOR	OBJECTIVE	MAIN RESULTS
ANÁKER et al., 2017	Summarize how a concept (design quality) is understood and used in a specific area (physical healthcare environment, e.g., architecture and built environment).	The concept of design quality in health architecture must be clear and explicit in order to meet not only the constructive complexity but also patients and health professionals The review explored the concept of design quality in relation to health environments and resulted in a taxonomy that contains themes and a wide range of terms used in the literature that consider the quality of design in health environments.

Source: Prepared by the authors, 2023.

### DISCUSSION

Through the analysis of the results obtained, it is noted that some articles selected in the databases address realities of other countries, where only 08 articles addressed the PNH from the perspective of comfortability, interrelating the contribution of architecture through the implementation or implementation of the guidelines of the environment and that contemplate the design elements, contributing to the humanization of the health spaces studied. These articles reinforce that the perspective of the PNH is broadened and encompasses not only the relationship with architecture, but the relationship between the environment and the individual's health status, humanized care and the health professional's perspective.

Costa, Pessatti and Oliveira (2015) argue that the constitution of healthy environments directly affects the production of health, as well as the relationship between the individuals that make up this space. The health environment is seen as a production that is inseparable from the production of health in search of qualitative advances within the scope of the SUS.

Thus, the environment is seen as the spatial guideline for the others that make up the PNH, since it involves the physical, social, professional space and the relationships with health. It is added that the environment is structured in three crucial axes: as a space for encounters between subjects, production of health and subjectivities; as a tool to facilitate the work process; the space that aims at comfort (COSTA; PESSATTI; OLIVEIRA, 2015).

It is noteworthy that in the New Aurélio Dictionary, the Ambience "is the architecturally organized and animated space, which constitutes a physical environment and, at the same time, an aesthetic or psychological environment, specially prepared for the exercise of human activities" (FERREIRA, 1999, p.117).



The design elements evidenced are not exclusive to the PNH, they are aligned with the knowledge of therapeutic environments, the environmental psychology studies of ULRICH (2008) and others, as described by Pizolatto (2014) and evidence-based design (EBD), and some articles included in this study, consider the elements of the comfort of the environment, even without the implementation of the PNH in their services, some of them, outside Brazil.

The role of the environment in the process of patient recovery was present in multidisciplinary studies prior to and concomitant with the emergence of the PNH in 2003. According to Toledo (2004), studies on the humanization of health spaces emerged with the aim of restoring the connection between health and architecture, which in the twentieth century was in the background, with the advancement of technological procedures in medicine and the conviction that environments serve only as a space to help curative practices.

In this context, humanization, which has gained strength over the years, is confirmed as a necessity for the renovation of hospital spaces, both from the point of view of social relations and in the process of elaborating architectural projects, and Lukiantchuki and Souza (2012) state that this is consensual. However, he noted that there is no unified concept of humanization of hospital spaces adopted by architects who develop projects in Brazil.

Freitas *et al.* (2013) considers the PNH and its official documents to be linked to what is recommended in the Nursing narrative about the promotion of care environments and are close to the Environmentalist theory of Florence Nightingale, whose thinking is strongly linked to the history and practice of the profession. Furthermore, with the concept of humanization there is the rescue of attributes emphasized by Florence Nightingale in the nineteenth century of ventilation, sanitation, noise and light control.

Vianna et al. (2008) highlight that the physical environment is an instrument that strengthens health processes with positive consequences for users, in addition to listing elements that contribute to this, such as social interaction/privacy, access to nature, environmental comfort, among others. Vasconcelos (2004) adds about the evidence of factors that are important for reducing stress and promoting well-being for the user: control of the environment, social support made possible by the environment and positive distractions from the environment.



Furthermore, color was considered as an event that may or may not be interpreted by the individual and may be a stressor by acting as a constant stimulus, thus, studies point to the possible influence of colors in therapeutic environments (BOCCANERA *et al.*, 2006).

More recent studies show that some elements of comfort contribute to the patient experience in the single room, such as: noise, which affects patient outcomes in the hospital; as well as better privacy and confidentiality (WALKER 2016).

In addition, hospitals with structures designed with characteristics that refer to the user's home/home, that is, have an aggregating and motivating environment, go beyond the context of hospital-disease to home-hospital, enabling an environment for the exchange of knowledge and experiences that promotes health, comfort, and relief for those involved (OLIVEIRA *et al.*, 2022)

The environment, as one of the constituent guidelines of the PNH, seeks changes in the work process, in health practices and in the understanding of the health-disease process, and constitutes a public policy that is directly associated with the principles of the SUS, transversality; inseparability between care and management and protagonism (COSTA; PESSATTI; OLIVEIRA, 2015)

It is noteworthy that Ribeiro and his collaborators (2014) observed thatthe year in which the most works on the PNH were produced was in 2009, exactly the year in which the 2nd National Seminar on Humanization was held, which aimed to give visibility to successful initiatives in the area. However, in the following years there was a decline that culminated in a total absence of publications in 2012 and the authors blame this situation on the absence of national events that encourage the publication of new articles. This fact reinforces the need for constant studies and production of knowledge, so that with the support of academia, humanization is included in the agendas and is a device for change.

It is worth mentioning that the meaning of humanization was the subject of a study by Bates (2018), where he discusses the need to deepen the concept of humanization and recalls that the driver of humanization in health was the technological advances in medicine, as a way to avoid dehumanization in health. She states that the term has diminished somewhat in its social and political poignancy, but it remains a regular feature of human-centred design and the scientific literature she has studied in the UK.

The focus of this research prioritized the axis of comfortability and the aspects of architecture in hospital environments, however the concept itself emphasizes the inseparability of the three axes in the composition of the environment and states that this



subdivision is didactic, as the environment discussed in isolation does not modify work processes (BRASIL, 2017).

A survey with civil servants on the processes of humanization and reception in the context of work in urgency and emergency revealed the PHPN as positive for a good work environment and for the quality of relationships between professionals and users. On the other hand, difficulties were pointed out regarding the deficiency of the physical infrastructure, the lack of materials and the maintenance of equipment (DUDOU *et al.*, 2017).

Oliveira et al. (2022) point out that ambience involves thermal, acoustic, visual, and chemical aspects, as well as emotion, bonding, and empathy between users, professionals, and teams. The value of the environment, in accordance with the PNH, is to promote more qualified listening for health professionals, users and managers, to establish better bonding relationships, environments that aggregate and generate health, stimulators of hope and solidarity, in addition to transforming the dynamics of work to the least unpleasant possible.

Soethe and Leite (2015) recall that architecture was the first art to deal with the hospital. The idea that the patient needs care and shelter precedes the possibility of providing medical treatment. It is not appropriate here to discuss the history of hospitals and hospital architecture, but the process of humanization arises exactly when the vertical monobloc type hospital building and the advancement of technological procedures in medicine make the emotional aspects focused on relationships secondary, as Toledo (2004) discusses.

Parallel to the debates on humanization and ambience exhaustively described, which culminated in the PNH from 2003 onwards, Evidence-based *design* (EBD), present in the studies of Anáker *et al.* (2017), gained strength in the USA and European countries from the 2000s onwards. EBD is an established concept for approaches in improving the process of health architecture and emphasize the centrality of the human being and patient well-being and collaboration.

The aspects addressed by Anáker et al. (2017) are similar to the aspects of ambience, from the perspective of comfortability, even though EBD is a methodology that follows a different logic from the PNH proposal. The proposal of the PNH is to offer the health worker/health professional/collaborator the rescue of humanized practice and the user a dignified, supportive and welcoming treatment not only as a right, but as a fundamental step in the achievement of citizenship (RIBEIRO, 2015).



The environmental strategies acted as devices for the humanization of the spaces and relationships established by the National Humanization Policy, not in a systematic way, in the total of studies analyzed, as well as it was not possible to measure whether there were substantial changes in the work environment, in the way of management or in people's lives. However, even partially or occasionally, all the efforts of the actions brought positive results in relation to the environment in hospital environments.

There is no doubt that the environment, even if not fully implemented in hospital environments, significantly interferes in the humanized care of hospitalized patients, as well as in their recovery process. However, it can be seen that the advances in the hospital infrastructure linked to the PNH are few, given the years of its implementation, evidencing failures and shortcomings in the process of evolution from architecture to the health-disease process.

## **FINAL CONSIDERATIONS**

The three axes of ambience were somehow present in the analyzed studies, theoretical or case studies. It was possible to evidence that there were results that showed points of improvement in care, in the quality of care and in relationships as actions aimed at the environment were applied. Environmental factors, which before the environment were rarely considered relevant in the health production process, acted as tools to help in the health recovery process and in the work environments.

This research pointed out that many architects know the term humanization, even with its broad concept. However, the concept of ambience proposed by the PNH apparently does not appear constantly for architects who develop projects in the health area, especially in Brazilian public health care establishments, as well as for those who design for private spaces.

With this study, it is believed that it is possible to awaken or reactivate the interest in the academic environment of architecture and in the professional fields of those who propose to develop health projects, the possibility of including public policies available to all.

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