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Organizational Theory and Nursing Theory in the Design of Organizational Structures in Health Institutions: A Theoretical Approach

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Abstract

Currently, organizations of any line of service require adjustments in their design, for example, health organizations. The in-hospital mortality rate is an indicator that measures the number of deaths occurring a hospital during a given period, relative to the total number of admitted. The process of designing or adjusting the architectures of hospital organizations must be adapted to the health processes of an individual in their arrival, in their recovery process and their departure. The relationship that exists in the construction of spaces in hospitals with the care process and duration of patients and recovery rate received in their spaces are decisive and are explained in this work with theorist of the organizations among others, up to the theorist of nursing such as Nightingale, among others.

Keywords

Design, Organizational Structure, Health Organizations

1. Introduction

The first and last value of the human being is biopsychosocial health in any organization or group existing on the planet, from the perspective of the doctor, the nurse, the teacher, the priest, the senior management, from the perspective of any discipline it will always be the design or designs of a construction from which the health of human beings is promoted from. Thinking about the well-being of the

human being is the main objective of every science or discipline, or at least that is the idea. Having healthy human capital in organizations perpetuates their existence and transgenerational balance.

Changes arise in any area of life, which forces us to renew and adjust to new organizational forms. Do things differently to get different results. The same happens in organizations, the growth of cities, the implementation of new technology, competitiveness, restructuring, among other things. They require the updating, adjustments, redesign or innovation of processes and systems inside and outside organizations. New configurations adapted to the needs of human beings. Reddin (Reddin, 1994) states that, "Organizations, like people, are living dynamic systems that are result-oriented; therefore, they live moments of adaptation, adjustment and reorganization".

Structures must then be subject to and built to the needs of the people in any organization.

Recent trends in the designs of physical and organizational structures recognize the importance of human resources and their health.

2. The Perspective of the Theory of Organizations and the Design of Structures

The General Systems Theory, the Contingency Theory and the Structural Contingency Theory, articulated epistemically, epistemologically, theoretically and methodologically, serve as a theoretical framework for the design, redesign and adjustment of organizational structures from the perspective that not a single option is the best for the health care of workers or patients. whatever they are.

The fundamental premise of these theories is that if it works in one situation it may not work in another, and organizations must adapt their structures and practices according to the contingencies that may arise in specific areas. In a congruent proposition, it is assumed that there is a simple unconditional association between the variables of the model, for example, the greater the uncertainty of the task, the more complex the structure. A contingent proposition is more complex because it assumes a conditional association of two or more independent variables with a dependent outcome and is directly subjected to empirical testing.

Drazin and Van de Ven (1985) in "Alternative Forms of Adjustment in Contingency Theory" state that the different approaches or strategies that organizations can employ to adapt to changing circumstances and achieve an adequate adjustment, are in the organizational structure, in decision-making, in personnel management, in regulation, in the management of the environment, in the strategies, among others, that the organization must follow; seeking the flexibility and adaptability that organizations can apply in various aspects of their operation to face the contingencies they face, whether they are health emergencies, catastrophes, accidents, and other situations.

Most organizations are limited in choosing or adopting structures that reflect their circumstances. No matter what level of organization is examined, there is

usually a larger level that imposes, at least in part, small practices. Organizations have structures that they impose uniformly across departments, divisions, and work units.

The rules of change are more interesting to contingency theorists, because they are the ones that most affect the fit between structure and context. They function as guidelines for administrators, allowing them to adjust the structure to new contingencies (COVID-19 for example). Organizations limit discretion by adopting a set of change rules, or contingency programs, that prescribe different layouts for different types of departments.

The concepts of adjustment can be applied to structural contingency theory and to contingency theories in general. Fit is a widely useful concept increasingly important in a wide range of organizational theories. Researchers interested in job design; and leadership, or strategy-structure relationships report that organizational performance is a function of the adjustment or coincidence between two or more factors. Each of these management disciplines could potentially benefit from a review more explicit of suitability of its area.

Lawrence and Lorsch (1967) state that the theory of organizations is key to how organizations can create a solid and flexible structure, which allows them to function more effectively, through topics such as differentiation, since according to the authors complex organizations need to differentiate themselves into specialized units or departments to handle specific tasks and challenges. Differentiation implies precisely the creation of spaces that generate and contribute to the improvement of health in all senses, and that each of these spaces focus on specific areas of attention in the organization. Contingent design proposes that there is no single organizational structure that is suitable for all situations, based on adaptability, since the design of the organization must be adapted to its circumstances and its environment.

Organizational designs advocate for different structural configurations that organizations can adopt according to their needs and environment. These configurations include simple structure, bureaucracy and divisional structure among others. Another concept he mentions is integration, organizations must also achieve integration to ensure that all parties work collaboratively and effectively. Integration also involves establishing mechanisms and structures that coordinate activities and ensure that the overall objectives of the organization are achieved.

Lawrence and Lorsch mention the importance of observing the external environment of the organization, since they refer, that organizations must adapt to their changing environment to survive and be able to prosper, although this may require adjustments in the structure of the organization and in the way of making decisions. They address key points related to organizational structure and how organizations can balance the need to differentiate for efficiency with the need; to the integrate for coordination and adaptation under the organizational management approach.

According to the study carried out by Mintzberg (1983), he tells us that

structure involves the division of labor in organizations and its coordination is of utmost importance for the achievement of objectives. An organization that achieves coherence among its components and that does not change an element without first evaluating the consequences is considered an effective organization.

In the same way, it shows us that there are different mechanisms for coordination in the work:

1. Mutual adjustment. Coordination is achieved through informal communication.

2. Direct supervision. It is the activity carried out by a person who takes responsibility for the work of others. Giving them accompaniment through the issuance of orders and the supervision of their actions.

3. Standardization of processes. It can be carried out when the work contents are ordered and are specified or programmed

4. Standardization of productions. It occurs when the dimensions of the product or performance are specified. In other words, the work is controlled and coordinated.

5. Standardization of workers' skills. When they have the knowledge to perform the job or are trained.

It is important to mention that these mechanisms will apply to a certain type of organization, but they could also be adjusted to meet the requirements of the organization. According to Mintzberg, the organizational structure in the hierarchical system to organize the personnel and means of a chain of command organization is composed of 5 elements:

1. Operational core: these are all the operators who work in an organization and who perform different functions such as securing inputs, transforming those same inputs into production, distributing production and providing direct support in the different stages of the product or service.

2. Strategic summit: there oversee a certain responsibility for the company and represent an authority. They ensure that the organization fulfills its mission while meeting the needs of the owners.

This is linked to 3 types of obligations:

- Direct supervision. Where resources are allocated, they issue important orders, authorize important decisions, resolve conflicts, monitor employee performance, motivate and reward them.
- Management of the organization's border conditions. It deals with interpersonal relationships as a person in charge of the environment that surrounds the organization.
- Organizational strategy. The changing environment is involved in measuring the possibilities and thus assessing the best strategy to follow that benefits the organization.

3. Midline. It will depend on the size of the organization, but it is about the people who are managers and execute a series of tasks of supervision of the employees.

4. Technostructure: it is made up of analysts in charge of adapting the organization to the environment, of control to stabilize and standardize its schemes of activities.

5. Support staff. They are support units for the organization.

Also mentions the 5 types of functioning in the organization:

1. Formal authority. According to the hierarchy.

2. Regulated authority. Production work through the operational core; orders going down the administrative hierarchy.

3. Informal authority. They are unofficial centers of power that supplement the channels of authority and regulation.

4. Work constellations. It is the grouping of people with their peers to carry out their work.

5. Ad hoc decision-making processes. In conclusion, he tells us that the set of these 5 types of operation results in the true functionality of the organization.

3. The Bridge between Organizational Theory and Nursing Theories: An Approach

Undoubtedly, the design of organizational structures in hospital organizations influences not only the health of patients, but also the organizational climate, leadership, organizational culture and therefore impacts employee well-being or team cohesion within the hospital environment. Incorporating aspects of leadership and decision-making processes in the context of healthcare organizational design could also provide valuable insights.

Today, documentary and bibliographic studies show irrefutable evidence that organizational theory has focused on issues of strategy and organizational structure in health organizations, as well as on the cultural factors that characterize a health organization and that would allow it to undergo processes of change that guarantee its best performance and efficiency in the processes of care for diseases of patients of different ages.

That is why Mintzberg studied in detail the structure and its influence in the creation of healthy organizations, to do so he studies, evaluates and defines what would be the most appropriate configuration for an organization around the five elements: strategic summit; middle line; operational core; technostructure and support staff, likewise, it is key to consider those coordinating mechanisms that constitute the linking point of the elements defined above, these are: direct supervision, mutual adjustment, standardization of work productions, products and skills, so that the preferred means of coordination could shift from mutual adjustment to direct supervision or standardization, preferably of work processes, or of productions, or if not of skills, finally returning to mutual adjustment, when the work in the organization becomes more complicated.

It is therefore inevitable that the type of design of an organizational structure is equal to the type of culture that will be developed within the organization. And with it, it will face internal or external factors and that in some way it is taught,

learned and accepted by a group of individuals in an organization. An organization can show a dominant culture, as well as subcultures in some areas or sections. It is considered that the culture of an organization has a direct impact on its effectiveness and performance.

That is why this binomial is absolute, for a change in the organization, the culture and structure have a direct impact on the processes of organizational change, in fact one of the typologies of change is related these two factors determinants to generate a competitive differentiation; paradoxically, the studies recognize the predominant culture, as well as the mechanistic structure particularly, as powerful limiters of organizational change, therefore, based on the bibliographic research collected, the alternative hypothesis is confirmed that the organizational structure and culture significantly include the change processes, depending on the type of structure and its coordinating mechanism as well as the dominant cultural levels.

The most prominent arguments are found in Simon and March (1977), who argue that the structure of the organization simply consists of those aspects of the behavior pattern that are relatively stable and only change very slowly. If behavior in organizations is "purposive rational," one would expect the behavioral aspects to be relatively stable. This means that the type of structure existing in the organization determines the behavior of its human resources.

For their part, Lawrence and Lorsch, in 1967, defined the organization as the interrelated system of people's behaviors to accomplish a task, which has been organized into several subsystems where each one responds with a part of said task and, at the same time, joins efforts for the effective performance of the structured system.

Mintzberg (1983), says that the structure of an organization determines the behavior of the subjects, climates, forms of culture, commitments, and so on and that it can be defined simply as the sum of the ways in which its work is divided between different tasks and then the coordination between these tasks.

To achieve this, Mintzberg recommends that the elements of the structure should be selected to achieve internal consistency or homeostasis, as well as a basic consistency with the organization's situation: structural dimension plus contextual dimension. Therefore, the design parameters as well as the situation factors should be grouped together to create what the author calls configurations. Depending on the choice of these parameters and factors, many configurations can be designed, however, in practice, only a small number of them can be effective for organizations.

Depending on the type of organizational structure, organizational culture provides an interesting variant for social integration, reproducing a particular order through consensus or, in this case, not so, but the opposite. This is the starting point for addressing the structure and its relationship with organizational culture.

In the words of Schein (1993), culture is a set of basic assumptions that arise in relation to the intention designed in the structure, invented, discovered or developed by a given group as it learns to deal with its problems of external adaptation

and internal integration that have exerted enough influence to be considered valid and, consequently, to be taught to new members as the correct way to perceive, think and feel those problems. That is, if the imposed culture is one of disrespect for women, then that will be reproduced in organizational spaces. Since culture is learned, it is modified or evolves with our experiences and can be changed by adjusting the organizational structure in a context of organizational learning.

Thus, individual behavior in the organization will be determined by the structure reflected in a system of formal rules, authority and standards of rational behavior and mainly by cultural norms, values, beliefs and assumptions. To predict how an organization may behave in each circumstance, it is necessary to know its structure since its culture is determined from there or, if applicable, to know its culture in order to know its structure.

This strategic binomial as culture and structure would have a direct impact on the processes of organizational change, in fact one of the typologies of change relates these two factors as determinants to generate a competitive differentiation, paradoxically, the studies recognize the predominant culture, as well as the mechanistic structure particularly, as powerful limiters of organizational change, therefore, based on the bibliographic research collected, the alternative hypothesis is confirmed that the organizational structure and culture significantly include the change processes, depending on the type of structure and its coordinating mechanism as well as the dominant cultural levels.

It is important to mention that after a state of the art of the theory of organizations, it is verified that attention has been paid to issues of strategy and organizational structure, as well as to the cultural factors that characterize an entity and that would allow it to go through processes of change that guarantee its best performance and efficiency of the different organizational forms.

4. The View of Nursing Theory and the Design of the Structures of Health Organizations

In 1854, Florence Nightingale joined the Security hospital in Turkey. There, British fighters in Crimea died more from disease than from war wounds. The young nurse managed to save many lives by introducing a series of changes and ways of working by organizing physical spaces, separating patients into different cross-ventilated wards, leaving enough separation between beds and increasing cleanliness and personal hygiene.

She was a visionary in understanding the impact of the design of the organizational and physical structure linked to the patient's health. She was a pioneer in the concept of the "healing environment", that is, she manipulated the environment to make it therapeutic by seeking the interaction of hospital design and that this design would impact the treatment and improvement of the patient's health. In his work Notes on Hospitals (1859), he wrote: "Adequate interventions with the design of hospital organizations taking into account the environment and the patient can prevent diseases."

The observations he made at the hospital in Scutari helped him to conclude that a polluted, dirty and dark environment caused diseases. His work was not only to prevent diseases from appearing in such environments, but he discovered that disease prevention should be done through controls of the environment. Thanks to her training in nursing, her brief experience as superintendent in London and her experiences in Crimea, she was able to make observations and lay down the principles of nursing education and patient care (Nightingale, 1858).

Nowadays, Nightingale's nursing principles remain the foundation of nursing practice. The aspects of his theory that deal with the environment (ventilation, temperature, silence, diet and hygiene) continue to be part of current nursing care. In the practice of nursing in the twenty-first century, these concepts are still used; they have even gained importance due to the new problems of disease control that global society must face.

Other new problems related to the environment have appeared, due to modern architecture (e.g., the sick building syndrome); nurses must ask themselves whether modern buildings with environmental control comply with Nightingale's principle of good ventilation. On the other hand, controlled environments are increasingly protecting people from tobacco smoke, toxic gases, car emissions, and other environmental hazards. The disposal of waste, including toxic waste, and the use of chemicals in our current society pose new challenges for healthcare professionals, who must reconsider the concept of a healthy environment (Butterfield, 1999; Gropper, 1990; Michigan Nurses Association, MNA, 1999; Sessler, 1999; Shaner-McRae, 2007). In healthcare facilities, it is becoming increasingly difficult to control the room temperature individually for each patient. This same environment can be very noisy due to the multiple activities that are carried out to promote the patient's repair process and due to the technology (equipment) used to carry out these activities.

Nurses study these problems from an academic perspective, as they continue to affect patients and the health system (McCarthy et al., 1991; McLaughlin et al., 1996; MNA, 1999; Pope, 1995). Monteiro (1985) provided the American public health community with a comprehensive review of Nightingale's work as a health and social reformer, recalling the extent of Nightingale's influence on health in different fields and her concern with the problems caused by poverty and poor hygiene. Although there are other disciplines in the United States with a growing interest in these problems, nursing and its professionals play a very active role in direct patient care and in the political and social spheres to guarantee healthy environments for all citizens. McPhaul and Lipscomb (2005) have applied Nightingale's environment principles to occupational health nursing practice. These nurse specialists have increasingly identified local, regional, and global environmental health issues. Modern changes in displacement, emigration, and physical environments are creating health problems for many people.

As healthcare systems and professionals struggle to promote patient safety through infection prevention in healthcare facilities, this work can be framed in

the words of Florence Nightingale: "It seems a strange principle to enunciate, as a requirement, in a hospital: Do not harm the sick" (Nightingale, 1863). This nurse thus became a precursor of hospital design. Kari Martinsen's vision states in her Philosophy of Care the importance of design. The person is always in a particular situation in a specific space. In space there are time, environment and energy (Martinsen, 2001, 2002a, 2002b). Martinsen wonders what time, architecture and knowledge do with respect to the environment of a space. Architecture, our interaction with others, the use of objects, words, knowledge, our know-how in space, are all factors that determine the tone and give color to the situation and the space. The person enters the universal space, the natural space, but through his spaces he creates a cultural space. Just as we build houses with rooms, the activities of the health services also take place in different rooms.

> Although the sick room is important as a physical, material, and built place, it is also a place we share with other people... The room, with its interior and its objects, make visible the interpretation that the patient and the nurse have of it. (Martinsen, 2001: pp. 175-176)

The challenge is to offer dignity to patients and to these spaces. What is needed is deliberate knowledge accumulated in moderately collected spaces, "a space in which it is possible to perceive, smell, hear, see and assist" (Martinsen, 2001: p. 176). Martinsen also worked with ideas about space and architecture. According to her, space and architecture can influence human dignity. First wrote about this idea in an article that bore the following poetic title: "The house and the song, the tears and the shame: space and architecture as guardians of human dignity" (Martinsen, 2001). In 2004, I was working a project of a book on space and architecture in health services. She had to interrupt him for his participation in discussions about the role of evidence-based medicine in nursing practice (Martinsen, 2005, 2008).

Now good, Watson's view on the original ten factors of care, speaks of the role of the nurse in the environment (Organizational, physical, environmental) as "attending to the environments of supportive, protective and/or corrective mental, physical, social and spiritual" (Watson, 1979: p. 10). In later work, he describes that "healing spaces can be used to help others overcome illness, pain, and suffering", and emphasizes that the environment and the person are connected: "When the nurse enters the patient's room, a magnetic field of expectation is created" (Watson, 2003: p. 200). It also has a broad view of the environment: The science of care is not only to maintain humanity, but it is also to maintain the planet. Belonging to an infinite spiritual world of nature and all living things; it is the fundamental link between humanity and life itself, in time and space, borders and nationalities (Watson, 2003: p. 305).

Marilyn Anne Ray states in her Theory of Bureaucratic Health Care that bureaucratic care began as a substantive theory and evolved into a formal theory. The substantive theory emerged as differential care and revealed that the meaning

of care is differentiated by its context. The dominant dimensions of care vary according to organizational structures, i.e., areas of practice or hospital units. For example, an intensive care unit has a dominant value of technological care (e.g., monitors, ventilators, treatments, and pharmacotherapy), and an oncology unit has a value of more intimate and spiritual care (i.e., family-centered, comforting, and compassionate).

The nurses staff value care in relation to patients, and administrators value care more in relation to the system, for example, as a safeguard of the hospital's economic well-being. The formal approach of the theory of bureaucratic care symbolized a dynamic structure of care. This structure originates in the dialectic between the thesis of humanistic care (social, educational, ethical and spiritual religious structures) and the antithesis, bureaucratic care (economic, political, legal and technological structures).

The dialectic of care in relation to the various structures illustrates that everything is interconnected with care, and the organizational system is a macrocosm of the whole of culture. One of the theoretical affirmations of the theory of bureaucratic care is that the meaning of care is very different depending on its structures (sociocultural, educational, political, economic, physical, technological, legal). The substantive theory of differential care found that nursing care is contextual and influenced by organizational structure or culture. The meaning of care is different in the emergency department, in the intensive care unit, in the oncology unit, and in other areas of the hospital. The meaning of care is also influenced by the function and position that a person occupies. For example, patients primarily express the need for humane care, while doctors' descriptions predominantly refer to the technical sphere.

Care is bureaucratic as well as spiritual, ethical, given the degree to which its meaning can be understood in relation to organizational structure (Ray, 1989, 2001, 2006). In the theoretical model, everything is influenced by spiritual-ethical assistance because of its interactive and relational connection with the structures of organizational life (e.g., politics, education). Spiritual-ethical care is both a part and a whole, just as each structure of the organization is both part and whole. Each of the parts obtains its objective and its meaning in terms of the other parts. Understanding spiritual-ethical care in the bureaucratic organizational system as a complex holographic formation facilitates the improvement of patient outcomes and transformation for human and environmental well-being (Themes, 2017).

5. The Present. The Design of the Organizational Structure of Hospital Organizations as a Healing Element

Twenty years after the death of Florence Nightingale, architects Alvar Aalto and Aino Marsio designed the Paimio Sanatorium in the middle of a Finnish forest, for tuberculosis patients, focusing on the patient's health. Antibiotics did not yet exist, and the architects, aware that the sun was a key factor in the recovery from this pathology, based their design on the maximum use of natural light, ventilation

and views of the outside. Both the location and the orientation of the building followed this premise. The hospitalization block has extensive terraces, where patients spent long hours outdoors, and with characteristic elements of People-Centered Design (PCD): large windows to see nature from the bed, a careful design of the furniture and color on the walls and ceiling of the room.

6. The Positive Impact of a Suitable Environment, Backed by Science

The statement that the environment influences the well-being of patients today seems reasonable and sensible, but it was not until 1984 that a scientific position was produced on the matter. Between 1972 and 1981, the American professor and architect Roger Ulrich collected data on the recovery of patients after an operation in a suburban hospital in Pennsylvania. The aim was to determine whether the patient's physical and organizational structural design applied to the construction of spaces such as rooms overlooking a natural environment could have measurable positive influences. The results showed that the 23 patients who were assigned rooms with a view of nature had a shorter postoperative stay, took fewer painkillers and received fewer negative evaluations from nurses than the 23 patients who were housed in rooms overlooking a building. The publication of this study in the prestigious journal Science led to a greater awareness of the impact of space and hospital design on the physical and mental state of the patient.

Involving the theory of the design of physical and organizational structures in the designs or adjustments of hospital organizations not only impacts the health or recovery of patients in a faster and more fortuitous way, but also positively impacts the reduction of financial expenses. Thus, since then, studies on this topic have multiplied that should impact the design of public policies for the construction of hospital organizations.

Based on Ulrich's study, Evidence-Based Design (EBD) is developed, which is defined as decision-making about the built environment based on rigorous and reliable research, to improve health outcomes as much as possible. This line demonstrates that the design of physical environments can affect the quality of care and the patient's medical outcomes. The emotional influence of space as a possible factor of physical healing reaffirms the definition promulgated by the WHO, as a state of complete physical, mental and social well-being, and not only the absence of diseases or diseases. Elements such as sensory comfort, acoustics, biophilic design, person-centered design, sustainability or EBD are some of the tools that allow us to design or adjust health-generating structures and spaces.

In 1991, Ulrich, a professor and researcher on health design at Chalmers University of Technology in Sweden, proposed a theory explaining the promotion the creation of health structures and spaces for the well-being of patients. She explains that to provide comfort, access to positive distractions and access to social support must be provided in the design of structural spaces, that is, physical spaces. In 2018, in a study called Oxytocin and Stress Response, scientists investigating how

the hormone oxytocin helps control stress by influencing cortisol and adrenaline levels, which are hormones that are activated during this state. Oxytocin is linked to social encounters in purpose-built spaces, as it promotes bonding between people, maternal behavior and positive communication. From the pandemic, physical and social interactions have been reduced and within spaces have been created for these purposes.

The notion of biophilia appears for the first time in the book The Heart of Man where the German philosopher Erich Fromm describes that the human being acquires a positive consciousness by living with Nature that motivates him to "love life", as explained by the etymology of the same word. This concept is used in the work environment where natural elements are applied with the aim of restoring the ability to concentrate and work more efficiently.

Vargas Galarza's studies on the design project on how to reduce stress levels in the hospital emergency room determine the positive impact on patients, since, according to the American Psychological Association (2019), reaching high and constant levels of stress affects health by causing: an increase in blood pressure, risks of heart attacks, deficiency in the immune system, muscle tension, insomnia and can even lead to depression.

It is proposed that, in observations carried out in hospitals and health centers in the city of Barcelona, it was found that the waiting rooms have photographs of landscapes or nature and that they also use wood finishes or that appear to be so. These design decisions demonstrate a health benefit that effectively reduces stress. When a room has a nature view, postoperative stays are shorter, pain relief medication is reduced, and general conditions improve. In the same way, the reaction of people who observe an image of mountains played on a television was studied to find that their blood pressure and pulse is lower than those who did not see the image (Vargas Galarza, 2020).

Within the design of hospitals, natural or artificial vegetation began to be used because it was shown that these elements reduce people's stress because it generates positive attraction. In an interview with the architect Clara Ruis Sambeat, partner of Study PSP Architecture; on carry out a studio specializing in healthcare architecture and responsible for the latest design of the waiting room of the Hospital Clinic, she commented on taking advantage of real vegetation in the spaces. It was concluded that this gesture generates a need for continuous maintenance for the health center that sometimes would not be continued, and the design would be affected in the future. Given the benefits of vegetation in these spaces, a patented self-watering pot system provided by Hobby Flower was found that can work to avoid the constant maintenance of a plant suitable for these spaces.

The adjustments of structures in the hospital waiting room, the result of the design of the interior space tries to accommodate the previously designed furniture in the existing space incorporating the selected materials and the concept of distribution at 1.5 meters. The exterior architecture of the Emergency Room of the Hospital Clinic is used to place planters and promote the design with biophilic

benefits. The main circulation and living spaces of the space are differentiated by the floor design. The circulation has a unicolor rubber coating and the design of the floor of the waiting spaces has an organic and random play of triangular shapes to seek to break with the very structured orthogonal arrangement that is frequently found in hospitals. (Vargas Galarza, 2020).

The pre-pandemic hospital model was affected by the novel coronavirus, and it was necessary to propose new structures for the healthcare sector to be better prepared for the future.

7. The Future. Healthy, Sustainable and Comfortable Spaces: Generating Health

In the 21st century, thinking only about healthier spaces is settling for very little. The so-called collaborative systems such as artificial intelligence, Big Data, Machine Learning and precision medicine, and the design of the current structure of hospital organizations, as well as the academic preparation of the health team, are questioned. Now that humanity's great challenges revolve around the urgency of caring for the planet, hospitals, and other buildings, must be, in addition to being sustainable, healthy and comfortable, places that meet the physical and emotional needs of users, buildings that not only prevent us from getting sick, but also generate health.

A recent example of improved health outcomes is the natural childbirth area of the HM Nuevo Belén Hospital in Madrid, where three comprehensive delivery units, waiting rooms and auxiliary areas for medical staff were designed, with a physiological approach to space, responding to the needs of the woman and the rest of the people involved during a childbirth process (Parra-Müller, 2017).

From the spatial amplitude to move, the use of natural materials, the regulation of sound, lighting or temperature; to a non-hospital environment or places to keep medical instruments out of sight, among others. Given that the rest of the hospital continued to attended birth under traditional conditions, it was easy to compare the obstetric results between the two models, with surprising conclusions about new one: drastic reduction in the rate of interventions; reduction in the use of the epidural by up to half by equipping each room with a shower and bathtub for dilation and delivery; and three times fewer births by cesarean section than in the rest of the hospital.

In the world, there are more hospitals that were built based on these proposals. In Mexico, specifically in the City of Cuernavaca, Morelos, in 2024 this inaugurate of the provision of services in a new hospital, built with the characteristics signaled in this document. The hospital is called: Althea Partners, the construction of this medical complex in Cuernavaca, is historic. For the first time, elements of the healing environment are contemplated, in a medical complex than has healing and bioclimatic architecture, its geographical location is in an area with tropical forest as landscape with a privileged climate, demonstrating that architecture is a tool that helps in the fast recovery of the health of patients, also contributing

positively to the organizational environment.

8. Conclusion

The structure of health organizations is crying out for a broader perspective. It is no longer a question of controlling the disease, but rather we want to eliminate the side effects of interventions, creating structures, spaces, environments that reassure the patient and take care of the human capital of health, and meet the physical and emotional needs of the entire society through the design, redesigns or adjustments in the organizational structures of hospitals.

Heydebrand (1989) argues that the new organizational forms are more flexible, adaptable and decentralized than the traditional ones. These characteristics allow any organization, whether health or not, to face the challenges of post-industrial capitalism, which is characterized by environmental turbulence, rapid change, and increasing complexity.

Today's world is increasingly complex and turbulent, and changes are occurring at an increasingly rapid pace. In this environment, organizations that want to be competitive need to be more flexible, adaptable, and decentralized than ever before.

Flexibility allows organizations to quickly adapt to changes in the environment. Adaptability allows to respond to new opportunities. Decentralization allows to leverage the talent and expertise of healthcare workers.

These characteristics are central to the new organizational forms that are emerging around the world. These organizations are designed to be flexible, adaptable, and decentralized, and are ready to meet the challenges of today's world. Organizations that embrace the trends of flexibility, adaptability, and decentralization will be better prepared for success in the future. These features will allow them to:

- Adapt quickly to changes in the environment, such as globalization, the digital revolution, and increasing competition.
- Respond to new opportunities, such as the development of new diseases and the health of medical personnel.
- Innovate and differentiate themselves from the competition, which will allow them to attract and retain the best talent.
- Improve employee satisfaction and morale, which will result in increased productivity and better patient service.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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