

# SYMBOLIC ENVIRONMENTAL MEDIATORS IN HEALTH SETTINGS: THE ROLE OF ART IN THE HUMANIZATION OF CHILDREN'S HOSPITALS

## Mediadores ambientales simbólicos en espacios de salud: el papel del arte en la humanización de los hospitales infantiles

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### Abstract

In this article, a model to analyze children's hospitalization contexts is proposed, based on the symbolic dimension of these health settings. The central concept of the model is one of symbolic environmental mediators, understood as environmental stimular signals associated with emotional experiences. Art is considered an environmental mediator in the settings of health care. From this perspective, various experiences of humanization through art in children's health settings are commented on.

The model was developed within the framework of a series of works about the degree of adaptation of pediatric hospitalization services to the psychosocial needs of the children and their families. The model allows a coherent description of real hospitalization settings and proposes dimensions to improve them.

The proposed model is considered to contribute to develop shared languages in the spheres of art and health.

**Key words:** Art; Health; Hospital; Hospitalized children.

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### Resumen

En este artículo se propone un modelo de análisis de los contextos de hospitalización infantil basado en la dimensión simbólica de estos espacios de salud. El concepto central del modelo es el de mediadores ambientales simbólicos, entendidos como señales estímulares ambientales asociadas a experiencias emocionales. El arte se considera como un mediador ambiental simbólico en los entornos de cuidado de la salud. Desde esta perspectiva se comentan varias experiencias de humanización a través del arte de espacios de salud para niños.

El modelo se desarrolló en el marco de una serie de trabajos sobre el grado de adaptación de los hospitales a las necesidades psicosociales de los niños y sus familias. Se observó que el modelo permitía una descripción coherente de los entornos reales de hospitalización y la propuesta de dimensiones de mejora de los mismos.

Se considera que el modelo propuesto contribuye a desarrollar lenguajes compartidos entre el ámbito de las artes y el ámbito de la salud.

**Palabras clave:** Arte, Salud, Hospitales, Diseño.

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**Summary:** 1. The Evidenced-Based Design (EBD) in hospital settings. Symbolic environmental mediators (SEMs). Typologies of SEMs in hospitals. SEMs in children's health settings: experiences of humanization through art. References.

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## **The Evidenced-Based Design (EBD) in hospital settings**

The concept of “Evidenced-Based Design” (EBD) is like the architectural analogue of the concept “Evidence-Based Medicine” (EBM) and it refers to the scientific justification that can endorse the importance of certain aspects of the physical setting for health and healing (Hamilton, 2004). Various works have revealed congruence between the perceived quality of the physical-spatial features and the social and functional aspects of hospitals; that is, a higher degree of architectural humanization is related to the perception of better quality of the relational, organizational, and functional dimensions (Fornara, 2006; Varni, et al., 2004). The impact of the quality of the physical and social environment of hospitals on patients' health is a topic of growing interest (Devlin & Arneill, 2003). There is scientific evidence that the physical setting in which medical care is provided can play a considerable role in patients' health and well-being (Ulrich & Zimring, 2004). Some authors stress the need for a more exhaustive review of the benefits of physical settings on health care, a review that should be based on a consensus of the taxonomy of the relevant physical dimensions (Berg, 2005). Among these dimensions, we propose to include the symbolic dimension of space (Ullán & Belver, 2008). A new perspective would thereby be taken into account when making decisions about the design of health settings. This perspective is related to the interpretation and meanings that users lend to these settings and to the consequences of such interpretations and meanings on health and well-being.

### Symbolic environmental mediators (SEMs)

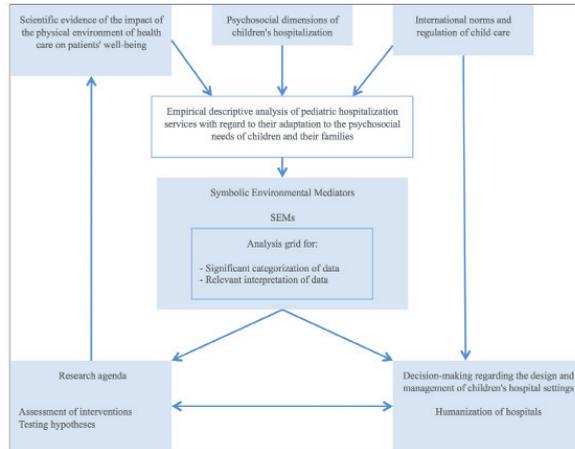


Fig. 1. Model of Symbolic Environmental Mediators

The physical environments of health care, and especially hospitals, are particularly complex environments, and many points of view concur in them: the architectural, the health viewpoint, the workers' viewpoint, the urban, the esthetic, and the economic viewpoint, etc. It would be especially useful to elaborate a model or perspective to analyze these environments that would articulate these points of view and allow the incorporation of knowledge of diverse disciplines with the capacity to improve health care. The appraisal of the Symbolic Environmental Mediators (SEMs) in hospital settings is proposed as a potentially useful perspective to analyze the processes of humanization of children's and adolescents' physical hospitalization settings. This model can be considered an approach to the analysis of the symbolic dimensions of hospitals with regard to pediatric patients' psychosocial well-being. The model was developed within the framework of a series of empirical works about the degree of adaptation of pediatric hospitalization services to the psychosocial needs of the children and their families (Ullan & Belver, 2005). The formulation of the model was based on the available scientific evidence about the impact of the physical environment on patients' quality of life and of the knowledge of the psychosocial dimensions of children's hospitalization that have been generated in the spheres of Psychology, Medicine, and Nursing since the 1950s. Likewise, the model took as its reference point the international regulation norms of child care in health settings, particularly the United Nation's Declaration of Children's Rights and the European Charter of Hospitalized Children's Rights (See Figure 1).

At first, appraisal of the SEMs in pediatric hospitalization settings was proposed as an analysis grid that would allow meaningful categorization and relevant interpretation of the data collected in the hospitals. The model was revealed as a power-

ful instrument for the organization of empirical data, because it allowed a coherent description of the real environments of pediatric hospitalization (Ullán & Belver, 2008). Moreover, it proposed ways to improve hospitals, as it indicated vectors or dimensions to be taken into account when making decisions about the design and/or management of space for children in hospitals.

*The way in which the hospital is perceived by children and their families and the meaning that they attribute to it* is considered a factor that can condition the effect of hospital stressors on pediatric patients' well-being (Ullán, Gándara, & Fernández, 2006). The physical space—in this case, the hospital—can be understood as a space of meanings for those who inhabit it. The meaning of an environment is the set of contents that allow a person to understand what a place represents for him or her. These meanings are constructed from the interpretation of the signals that are present in the environment. This process of attributing meaning is the basis of the emotional experience of the space (Corraliza, 2000). It is easy to see that the hospital, as a physical and social space, has emotionally negative meanings associated with it for the patients and their families. It is a setting that is linked to disease and its consequences, and part of its intrinsically aversive nature has to do with this. But the hospital is not only the place where we are sick and we suffer, but also the space where we heal. The hospital should not be perceived only as a space of disease, but as a space of *health*, understood as *physical psychological, and social well-being*.

The conception of the hospital as a space of health is especially important in the case of pediatric hospitalization (Ullán & Belver, 2006). Due to the psychosocial features of pediatric patients, their perception of the environment and the emotional experiences associated with the hospitalization process should receive special attention. As mentioned, the process of construction of meaning of the environment is a complex process that is a part of the more global process of perception and interpretation of the environment (Corraliza, 2000). In this process, a set of stimular signals with communicative and informative value are particularly important because through them, one's own or vicarious experiences end up being associated with certain emotional experiences. The meaning of the environment becomes an emotional meaning, capable of provoking diverse emotional experiences in people. We shall call these stimular environmental signals that are associated with emotional experiences *symbolic environmental mediators*. Depending on the nature of the emotional experiences associated with these environmental mediators, we shall refer to them as *symbolic environmental stressors*, when the emotional associated experiences are negative, or as *symbolic environmental relaxers* when we refer to the stimular signals associated with positive emotional experiences.

Due to their nature, their organization, and the way they function, hospitals have a great capacity to generate *symbolic environmental stressors* for patients and their families. In the case of pediatric patients, the process can be more pronounced because of the children's cognitive interpretation and affective appraisal of the environment. However, the very peculiarities of these young patients allow us to design, fairly easily, stimuli with the opposite effect; that is, *symbolic environmental relaxers* associated with positive emotional experiences and with a high capacity to affect hospitalized children's well-being. The typology of stimuli —*symbolic environmen-*

*tal mediators*—that we can include in the category of *stressors* or *relaxers* is extremely varied. In fact, the stimular features of a signal are not what characterize it as a stressor or a relaxer, but rather the meanings associated with it and the emotional experiences linked to these meanings. Obviously, these aspects can be as diverse as the individual and collective experiences with these stimuli and as people's interpretations of them.

### Typologies of SEMs in hospitals

Due to the diverse nature of the stimuli observed that can be considered symbolic environmental mediators within the setting of children's hospitalization, we have grouped them in the following three categories:

Structural symbolic environmental mediators (architectural/ constructive). Here, we consider the aspects that are practically determined in the process of design and/or construction of the hospital. They generally include architectural elements, sometimes involving urban planning and/or landscaping, and they are difficult to modify. Examples of this type of mediators are the illumination of the hospital rooms, the quality of the environmental landscape that can be seen from the rooms, visual access to the exterior, etc.

Functional symbolic environmental mediators. These are elements whose function (almost always medical or assistential, but also of other types) is determined by their presence in the hospital setting. Their classification as possible symbolic environmental stressors or relaxers is determined by the fact that, like the previous elements, their perception can be associated with emotional experiences, both positive and negative. Given the nature of the hospital, many of its "functional elements" can be considered to belong to this class. The development of health activities (both diagnosis and treatment) generates a large quantity of this type of stimuli in the hospital setting, which are perceived and interpreted by the patients, who associate them with specific meanings and link them to certain emotional experiences. These emotional experiences can be provoked by the very nature of the stimulus, for example, how the patient felt when that stimulus was present, but also by the degree of familiarity of the stimulus. Many stimuli that are perceived in the hospital and that are familiar for the clinical staff are strange and unfamiliar to the pediatric patients and their parents. This lack of familiarity can also be considered a source of emotions—in this case negative—especially for children. Examples of this type of mediators are the medical apparatus, the clinical staff's uniforms, the furniture of the hospital, etc.

Decorative symbolic environmental mediators. We consider as such the elements of the environment that have no functional or architectural value, but which can be perceived by the pediatric patients and their relatives, and which contribute to the cognitive and emotional meaning they assign to the hospital setting. Decorative mediators are characterized by their variety, flexibility, and their capacity to modify the psychological impact of the constructive and functional elements. These are aspects of the decoration of the hospital that do not deserve the negligible attention they almost always receive, as they have a great impact on the way that children perceive

the hospital setting. Among such mediators is the color of the walls, the illustrations, pictures, etc.

### SEMs in children’s health settings: experiences of humanization through art

The conjoint work of artists, clinical staff, and patients and their families has led to innovating experiences that link art and health. This multidisciplinary collaboration allows the exchange of perspectives among diverse specialists, with the common goal of promoting children’s and adolescents’ well-being in health care settings (see Figure 2).

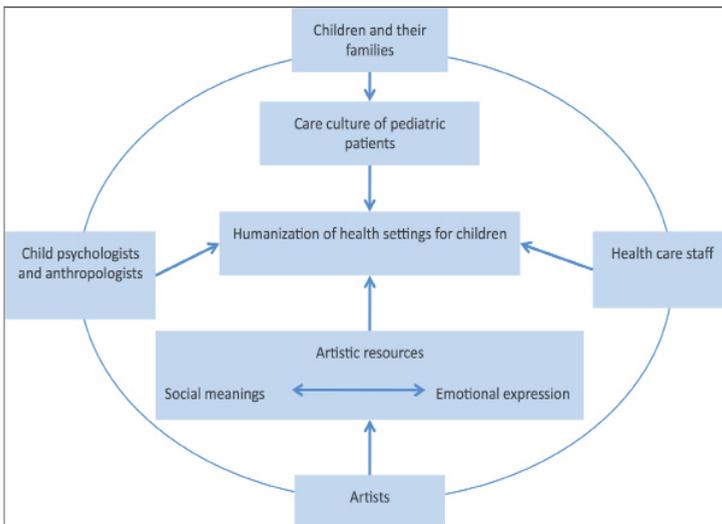


Fig. 2. Outline of multidisciplinary collaboration in the humanization of children’s health settings

The CurArte Project experience ([www.ucm.es/info/curarte](http://www.ucm.es/info/curarte)) was especially significant with regard to the use of artistic resources as “symbolic environmental mediators” in pediatric health care settings, both in hospitals (Ullán, Fernández, & Belver, en prensa) and in primary care services (Ullán & Manzanera, 2009). In all these experiences, artistic resources have established certain elements that are essential for the humanization of children’s health care settings. These resources are conceived as a privileged strategy to promote a culture of health care for pediatric patients that is especially attentive to the emotional needs of the children and their families during the processes of disease and healing. Art has been used as a powerful symbolic environmental mediator that can transmit positive emotional meanings to the children and their families in health care settings. The experiences developed were based on the use of color and, especially, artistic illustrations to humanize the health care settings for the children, making them friendlier and more familiar to them. The type of illus-

tration used responded to the requirements of the space where the intervention took place (luminosity, location, etc.) and the aspects that, from the psychological viewpoint, should be emphasized in order to have a positive impact on the pediatric patients' emotional status (mood, play, distraction, etc.). The illustrations were conceived to affect children's mood positively, avoiding fearful situations within the medical care settings and enhancing the children's distraction and play. This type of illustration can be considered a "symbolic environmental mediator" that has been shown to have an important capacity to make health settings more suitable for children. Sign-post panels to indicate directions and locations in the health facilities.



Fig. 3. Illustrations used as signposts in a pediatric consulting office (Artist Clara Hernández).



Fig. 4. Illustrations used to decorate the area of pediatric emergencies (Artist Paula Núñez).



Fig. 5. Waiting-room illustrations of a pediatric consulting office (Artist Clara Hernández).

Art, as a vehicle of social meanings and as a means to express emotional experiences associated with health and disease, becomes a protagonist in the health sphere (Camic, 2008; Stuckey & Nobel, 2010). The assessment of the impact of the art programs in the health setting is the subject of discussion. The incorporation of art programs in health settings requires the development of assessment tools that can provide evidence to support the continuity of these intervention models, showing us what, when, and how to introduce diverse art forms to achieve the most effective results (Staricoff, 2006). The problem is what should be understood as evidence within this context (Putland, 2008). But, besides the advances in the assessment methodology, the development of these programs requires the use of shared languages and multidisciplinary vocabularies that reflect interests and values that are inherent both to the perspective of health and to that of art (Putland, 2008). To conceive of art as a “symbolic environmental mediator” in health care settings allows to do this and, in the pediatric health settings, it has fostered the development of artistic interventions as a resource to improve the quality of children’s health care settings.

## References

- Berg, A. E. (2005). *Health impacts of healing environments. A review of evidence for benefits of nature, daylight, fresh air, and quiet in healthcare settings*. Groningen: Foundation 200 Years University Hospital Groningen.
- Camic, P. M. (2008). Playing in the mud: health psychology, the arts and creative approaches to health care. *Journal of Health Psychology, 13*(2), 287-298.
- Corraliza, J. (2000). Emoción y ambiente. In J. I. Aragonés & M. Amérigo (Eds.), *Psicología ambiental* (pp. 59-76). Madrid: Pirámide.
- Devlin, A. S., & Arneill, A. B. (2003). Health Care Environments and Patient Outcomes. A review of the Literature. *Environment and Behavior, 35*(5), 665-694.

- Fornara, F., Bonaiato, M. & Bonnes, M. (2006). Perceived hospital environment quality indicators: A study of orthopaedic units. *Journal of Environmental Psychology*, 26, 321-334.
- Hamilton, D. K. (2004). Certification for evidence-based projects. *Healthcare Design*, 4, 43-46.
- Putland, C. (2008). Lost in Translation: The Question of Evidence Linking Community-based Arts and Health Promotion. *Journal of Health Psychology*, 13(2), 265-276.
- Staricoff, R. L. (2006). Arts in health: the value of evaluation. *The Journal of the Royal Society for the Promotion of Health*, 126(3), 116-120.
- Stuckey, H., & Nobel, J. (2010). The connection between art, healing, and public health: a review of current literature. *American Journal of Public Health*, 100(2), 254-263.
- Ullán, A. M., & Belver, M. H. (2005). *Los niños en los hospitales: espacios, tiempos y juegos en la hospitalización infantil*. Salamanca: Témpora.
- Ullán, A. M., & Belver, M. H. (2006). Gestión de espacios infantiles hospitalarios. *Sedisa XXI*, 2, 24-31.
- Ullán, A. M., & Belver, M. H. (2008). *Cuando los pacientes son niños: Humanización y calidad en la hospitalización pediátrica*. Madrid: Eneida.
- Ullán, A. M., Fernández, E., & Belver, M. H. (en prensa). Mejorar los espacios de salud: humanización a través del arte de un servicio hospitalario de urgencias pediátricas. *Revista Rol de Enfermería*.
- Ullán, A. M., Gándara, S., & Fernández, E. (2006). Cómo incidir en la experiencia emocional del niño. *Revista Rol de Enfermería*, 29(4), 258-262.
- Ullán, A. M., & Manzanera, P. (2009). Las paredes cuentan: arte para humanizar un espacio de salud pediátrico. *Arte, individuo y sociedad*, 21, 125-146.
- Ulrich, R., & Zimring, C. (2004). The Role of the Physical Environment in the Hospital of the 21st Century: A Once-in-a-Lifetime Opportunity Available from [http://www.healthdesign.org/research/reports/physical\\_envIRON.php](http://www.healthdesign.org/research/reports/physical_envIRON.php)
- Varni, J. W., Burbinkle, T. M., Dickinson, P., Sherman, S. A., Dixon, P., Ervice, J. A., et al. (2004). Evaluation of the built environment at a children's convalescent hospital: development of the Pediatric Quality of Life Inventory parent and staff satisfaction measures for pediatric health care facilities. *Journal of Developmental and Behavioral Pediatric*, 25, 10-20.