

Health, gender and healthcare design: considerations about hospital environments in a gender-sensitive perspective

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The influence of healthcare environments on health and wellbeing has been often the object of scientific studies during the last decades¹, revealing a high interest not only in the strictly medical issues but also in the psycho-emotional ones. Many studies indeed focused on the concept of “humanization” of healthcare environments², and analyzed the role of different elements – such as light, colors³, nature⁴ and art⁵ – in order to identify better design criteria for the realization or renovation of hospitals. Nevertheless, if we consider in particular the Italian panorama, the majority of existing facilities (with some exceptions just for the newest ones) seems unable to comply with these new instances. A further issue that still needs to be faced, moreover, is how influence of healthcare environments may depend on gender belonging.

Wide debates about gender, developed during the last decades, contributed to define the concept of “social construction” of gender. Today, the social factors involved in the construction of gender are considered to be numerous, since there has been a shift from a predetermined “social condition” imposed to women, to more diversified ‘biographies’ that, although with some obstacles, are chosen with higher freedom. In particular, those ‘biographies’ and their dynamics are influenced by two main factors: education and labor market⁶. New “gender-sensitive” lenses have been applied to many fields of social sciences and humanities and, most recently, also to medical sciences. Since this paper deals with healthcare environments and their impact on health and wellbeing, it is useful to look at the sociological, medical and architectural fields.

Recent studies, that joined the medical and sociological sectors, were focused on health and wellbeing, conceiving them in a gender-sensitive perspective⁷⁻⁸; many other studies, combining medicine and architecture, were aimed to define new healthcare design criteria⁹, but never going into detail of gender-dependent issues (the only exception was for maternity units). Architecture and urban planning were finally considered in a gender-sensitive perspective¹⁰, but the intersection of all the aforementioned disciplines – medicine, sociology and architecture – to talk about healthcare environments in a gender perspective, actually, has never been

faced. This is why a recent research was started within the TRIGGER Research Project (<http://triggerproject.eu/>)¹¹ with the aim to cross the boundaries between these three fields. Below, the first considerations of this research will be described, starting from a fundamental issue: the territorial accessibility of healthcare facilities¹².

The relationship between hospitals and urban settlements evolved significantly over time¹³, from the Renaissance, when hospitals were placed into the city centers, to the 19th and 20th Century, when hospitals were grad-



Ospedale Civile Giuseppe Tabarracci, Viareggio, 1920 (photo by the Authors).



Nuovo Ospedale delle Fate-bene-Sorelle in Milano.
Ospedale Fate-bene-Sorelle, Milan, 19th Century (Cosmorama Pittorico, 1839).



Entrance hall of Ospedale Versilia, Lido di Camaiore (Italy) (photo by the Authors).



Orientation system in Ospedale Versilia, Lido di Camaiore (Italy) (photo by the Authors).

ually moved toward suburban areas. Today, hospitals' localization is characterized by even a higher complexity in comparison to the past, because hospitals are in the meantime healthcare facilities, work places, research centers and, last but not least, companies. Therefore, their accessibility should be always guaranteed considering the high variety of functions and consequently a plurality of subjects: from patients and visitors to healthcare staff, emergency vehicles and materials suppliers. In this regard, it is worth noting that, in the first two groups, the female component is the major one¹⁴⁻¹⁵, therefore, since gender has been proven to influence mobility dynamics¹⁶, yet hospitals accessibility may be read in a gender-sensitive perspective (considering, for instance, the needs in terms of public transports, accessibility to pedestrians, connection with cycling routes, proximity of parking areas).

Shifting from the accessibility level to the architectural one, it is useful to remind the scientific methods for rating hospital settings – such as the Perceived Hospital Environment Quality Indicators (PHEQIs)¹⁷ – that were developed since the influence of hospitals environments on healing processes became a widely recognized issue. The PHEQIs were defined and tested for the first time in Italy, in three different hospitals representing low, moderate and high levels of humanization, and in particular they were used to define questionnaires not only for patients, but also for visitors and staff. It is also worth to mention a research developed at the Molinette Hospital of Turin, in the unit of oncologic surgery, where an on-site investigation was developed through the use of pictures representing different layouts of a day-hospital chemotherapy unit, characterized in particular by different levels of privacy, different possibility to see outdoor spaces, and different possibility to observe the surrounding indoor space¹⁸.

It is useful to focus the attention also on some specific areas of healthcare facilities, reflecting on possible

differences among men and women as for behaviors, attitudes and sensibility toward spatial qualities. Firstly, the entrance hall: a space that, according to the current design trends, is qualified as a 'filter-space', as it should allow the users to enter gradually in contact with the facility (for instance, maintaining a visual connection with the urban context): adopting a gender-sensitive perspective, it should be investigated, for instance, if the perception of this complex and wide space may differ among men and women, as well as their behaviors and their modalities of interaction. The entrance hall, moreover, together with the hallways, should enable users to move independently through the facility, avoiding the feeling of disorientation, but since spatial orientation strategies were found to differ among men and women, these differences should be carefully analyzed and then considered in the design of the aforementioned spaces.

A further crucial space is clearly the patient room. Since the process of acquisition of the own private space and the perception of safety, privacy and control, were proven to be favorable factors in healing processes¹⁹, they should be analyzed in a gender-sensitive perspective as well, because useful indication may be drawn about the design of spaces and furniture in terms of distribution, dimensions and flexibility.

Besides the patients perspective, moreover, it is worth to dwell also on the impact of hospital environments on healthcare staff: many studies about workplaces in general, highlighted some gender differences in the personalization of private working spaces²⁰, in the influence of office layout, and in the sensitivity to visual, acoustic, and olfactory features²¹. Therefore, it may be worth to deepen, in a gender perspective, the staff's point of view as well.

To conclude, on the basis of the existing studies concerning hospital environmental quality, and those regarding gender differences in the interaction with the

built environment, the following research objectives were identified:

1. to extend the Perceived Hospital Environmental Quality Indicators in a gender-sensitive perspective, and test them on specific case studies;
2. to define gender-sensitive criteria for improving the territorial accessibility of healthcare facilities, according to the gender-dependent issues in urban mobility;
3. to define gender-sensitive design criteria for the humanization of existing facilities.

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Conflict of interest statement: the Authors declare no potential conflicts of interest or any financial or personal relationships with other people or organizations that could inappropriately bias conduct and findings of this study.

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