

Universal Design assessment tool to promote well-being and inclusion in healthcare environment

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Background:

Universal Design is a design process that enables people of all ability levels by improving human performance, wellness and social participation. The research aims at developing a performance-based assessment tool adopting Universal Design to enhance users' benefits and positive outcomes such as usability, well-being and social inclusion focusing on healthcare environment.

Methods:

The evaluation framework resulted by different methodologies: a systematic literature review on existing Universal Design tools; workshops with both users and experts and the analysis of hospital case studies. Multi-criteria analysis is adopted as methodology to develop a hierarchical framework able to compare quantitative and qualitative aspects of the same project. A rating system based on a checklist is used to evaluate performance.

Results:

The tool structure is based on a hierarchical framework composed by 3 Categories (Physical/spatial quality; Sensorial/cognitive quality and Social quality); 8 Criteria (Usability, Functionality, Safety and Security, Wayfinding, Understanding, Environmental factors, Well-being and Social Inclusion); 20 Indicators and a plurality of requirements. Since the needs of users (patients, visitors, staff) change in relation to the space setting, the tool assess the quality considering different areas of the hospital: Outdoor Spaces, Entrance, Interior Circulation, Support Spaces (waiting areas, bathrooms, food services), Work Spaces (exam rooms, offices) and Overall Service.

Conclusions:

The proposed tool can foster public health supporting the management of healthcare environment in taking decisions on universal usability and multisensory quality perception through a performance-based approach. The tool has been validated in a hospital of the State of New York, focusing on public areas and outpatient department. Further applications in various healthcare facilities of the Italian context are aimed to implement the tool.

Key messages:

- The assessment tool aims to support designers and healthcare management from the beginning of the design project to ensure public health and inclusive design through a performance-based approach.
- The tool based on Universal Design allows to evaluate spatial, sensory and social quality considering the relation between hospital areas and users' needs that influence people's well-being.