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**Melbourne
School of Design**
Faculty of Architecture,
Building and Planning

DESIGN FOR WELLBEING

DESIGN GUIDE

The field of evidence-based design seeks to identify strategies by which the designed environment can elicit particular effects; within the design of health care facilities, good design practice has been shown to directly influence the wellbeing of patients, their families and their care providers. Facilities designed to enhance wellbeing can contribute to improved health outcomes. Conversely, poorly designed environments can negatively impact care experiences and increase patient stress and anxiety. We present herein a design guide for practitioners, as developed through our comprehensive comparative case study analysis of contemporary Australian paediatric hospitals.

This study evaluated, prioritized and strategized the most effective means for engaging design practice to achieve positive health outcomes and experiences for patients, families and care providers. The significance of this work lies in determining best practice models to further opportunities for the design of healthcare environments that actively promote positive wellbeing and to understand the relative importance of design factors in the creation of new healthcare facilities. Building on previous studies, we move beyond the examination of individual design factors related to patient wellbeing, and instead undertakes an in-depth and holistic study of the specificities of a diverse range of environmental design strategies derived from specific healthcare case studies.

THE USE OF THIS DESIGN GUIDE

This guide highlights that we should not be concerned simply about the individual elements when designing. We present instead key dimensions which designers should be thinking about during design. These dimensions will manifest in different ways, there is no one way of achieving them. The most successful hospitals embed these attributes to create engaging, positive environments which enhance wellbeing and experiences.

THE TEAM

University of Melbourne: Julie Willis
(Chief Investigator); Philip Goad; Alan Pert;
Rebecca McLaughlan, Stephanie Liddicoat

Lyons: Corbett Lyon, Codey Lyon, Stefano Scalzo

Research assistants: Ahmed Sadek; Ranjeet Starr;
Leila Mahmoudi Farahani

This research is supported under the Australian Research Council's Linkage funding scheme (project number: LP140100202). Research partner: Lyons architects.

What makes a great children's hospital

PLACE

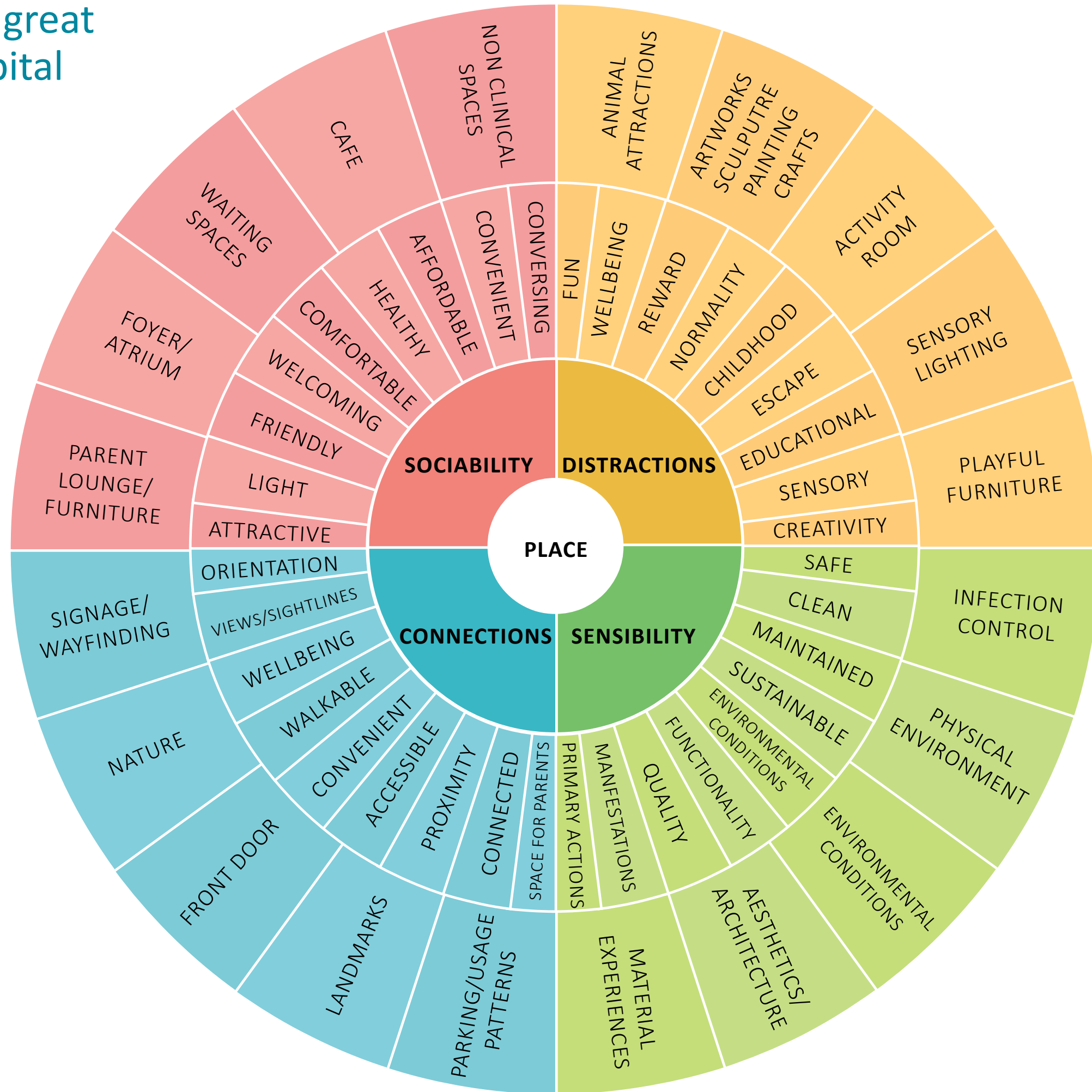
We utilise the term place to refer to the themes of identity and sense of belonging related to an experience in context, noting that features of the paediatric hospital environment can contribute to a sense of place through positively transforming expectations of visiting the hospital, igniting the imagination and inciting a desire to return. Physical and psychological experiences intersect through the four quadrants noted in this design guide, and through good design practice can evoke a sense of belonging and place in the paediatric hospital environment.

SOCIABILITY

This quadrant explores various aspects of paediatric hospital design which are supportive of sociability and family wellbeing and experiences. We emphasise design strategies which facilitate feelings of welcome, comfort, conversing and interaction, as significant contributors to a sense of belonging and wellbeing. We encourage a consideration of how sociability can be afforded through design practice for parents, children and other groups of building users, noting the differing needs of these groups, and the different spaces and contexts in which sociability might be encouraged in the pediatric hospital environment.

CONNECTION

This quadrant underscores a consideration of the composition of the hospital, and its interaction with other services in the healthcare system and broader urban environment. We recommend attention be paid to access at different scales, including access to the site and surrounds, the wards, the amenities, and the staff, among others. Wayfinding and adjacencies relative to the use of landmarks, signage, artworks, proximities, inside/outside relations, entry points / threshold conditions are also significant, and we underscore the role of these features in creating a sense of place and atmosphere of calm. Inside/outside relations, edge conditions and surveillance/sight-lines are of particular significance relative to the inclusion of nature and landscape elements.



DISTRACTION

This quadrant emphasizes the complexity and nuance by which positive distraction can be integrated into the designed environment, and its outcomes as contributing to wellbeing. We note that environmental features can offer significant benefits to wellbeing through transforming expectations of the pediatric hospital experience and stimulating a desire to return. Positive distractions also provide significant opportunities to contribute to a sense of place, and provide opportunities for characterizing the pediatric hospital experience as full of exciting things to see and do. We encourage a consideration of the sensory, active, creative and play-based modes by which distraction can be integrated into the built environment, and the contexts and spaces in which this is most effectively afforded.

SENSIBILITY

This quadrant emphasizes the various dimensions of the material and aesthetic environment, and the implications on the provision and experience of care. The role of design is crucial in facilitating infection control: spaces which are clean, safe, maintained, robust and sustainable. Further, interactions between the physical environment, the environmental conditions and the aesthetic experience are implicated in creating an atmosphere of care and recovery. We highlight a consideration of the interactions between the functionality and physical space, the routines and practices of care, and the perceptions of care. The interactions of these aspects underpin how comfort and image is manifest in the children's hospital environment.

METHODS

Data was collected from patients, staff members, parents and carers at The Royal Children's Hospital and Monash Children's Hospital, Melbourne, Australia, using a mixed method approach that included: nine different survey instruments; focus group interviews with children, parents/ carers and staff members; interviews with architects and briefing teams; spatial behaviour observations within paediatric hospital spaces; photo-elicitation interviews with inpatient children; and two different drawing exercises conducted with children in the hospital.

The surveys focused on the topics of 'distraction', 'social spaces within the hospital' and 'wayfinding and associated implications.' Surveys were developed by the research team following an extensive review of existing discourse, and in relation to the specific environmental features at the hospitals being studied. Survey data was analysed quantitatively (for single response, and Likert-scale questions), while discourse analysis was used to analyse the open-ended questions.

Data arising from the focus groups were analysed using a grounded theory approach whereby, once collected, the views obtained from parents and carers were compared against interviews conducted with members of the hospitals' architectural design teams (Bates Smart in association with Billard Leese Partnership and Silver Thomas Hanley).

Three different methods of spatial observation were carried out within the outpatient, and emergency department waiting rooms, the public atrium, various dedicated family spaces, and the Starlight Express Room (a children's activity space). A snapshot method recorded the number, demographic

and activity of every person inhabiting waiting rooms and atrium spaces during observation, captured at ten-minute intervals. A shadowing method was also used within waiting room spaces where one patient at a time was observed for the duration of their wait; this captured the activity people were engaged with alongside the type of behaviour they were exhibiting at one-minute intervals. In smaller spaces, including the family and parent lounges, drawings were made of the space in plan view, divided into zones, to enable the detailed recording of where people were within the space, what they were doing there, and how long they remained in the space, in addition to their demographic information.

Photo-elicitation interviews were conducted, primarily with inpatients (age range 7-17). Participants were shown eleven photographs of public, semi-public and private spaces from within the hospital. Patients were asked to give their thoughts on each image as they deemed relevant. Various prompts were used by the research assistant to initiate conversation. This method of data collection was informed by the research of the University of Sheffield's Space to Care research team, who found photo-elicitation interviews a meaningful avenue to obtain children's views.

Two drawing exercises were conducted with children in outpatient waiting areas. One invited children to draw their 'dream hospital' and the other invited children to 'storyboard their hospital journey.' Notes were taken relative to the children's explanations of their drawings, and the content compared with other data collected in the study.

CONTACT

Questions or interest in collaborating?
Please contact the research team via email:

Dr Stephanie Liddicoat
stephanie.liddicoat@unimelb.edu.au

Professor Julie Willis (Chief Investigator)
j.willis@unimelb.edu.au

