

Participation in healthcare environment engineering... the story so far

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Participation in Healthcare Environment Engineering (PHEE) is a major five-year EPSRC-funded research programme, launched in 2010. We aim to understand how design can improve people's experiences of healthcare environments, to positively affect health, wellbeing and healthcare-effectiveness. This builds upon the evidence base that the environment can affect health outcomes (Ulrich 1991) and that improving experiences of healthcare environments is a central research theme (e.g. Bate and Robert 2006; 2007) and focus for policy discussions (DH 2010). We use, develop and evaluate (digital and non-digital) methods for involving people in design and explore the relationship between design and its impact on people.

Our multi-disciplinary team includes design, environmental psychology, ergonomics, engineering, computer-science, business and health. We work directly with the NHS, health professionals, architects, and designers and we engage with policy-influencing bodies and research councils. To date we have tackled a range of projects involving diverse groups of users across a wide spectrum of healthcare environments. We have designed and evaluated a staff co-design process to improve restoration in an NHS Emergency Department, and worked collaboratively with the NHS and interior designers on a wellbeing centre in a major London hospital. We have interviewed healthcare architects about design quality, interviewed GPs about online patient feedback, investigated how to improve the soundscape of a cardio-thoracic ward, and conducted lab-based evaluations to uncover preferences for healthcare waiting room design. We have also examined the relationship between care home design and depression in residents and explored the role of the domestic home environment in supporting the adoption of telehealth.

Now halfway through our program, in this presentation we reflect on the shared learning emerging from across the different strands of our programme, and on the challenges of conducting design research with the NHS in its current state of change. Finally, we propose a roadmap for our future research direction.

References

- Bate, P. and Robert, G. (2006) Experience-based design: from redesigning the system around the patient to co-designing services with the patient. *Qual Saf Health Care*, 15, 307-310.
- Bate, P. and Robert, G. (2007) Toward more user-centric OD: lessons from the field of experience-based design and a case study. *Journal of Applied Behavioral Science*, 43 (1), 41-66
- Department of Health (2010) A&E clinical quality indicators data definitions. Available at http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_122892.pdf
- Ulrich, R.S. (1991) Effects of health facility interior design on wellness: Theory and recent scientific research. *Journal of Healthcare Design*, 3, 97-109