



Design for health: transforming the way healthcare is delivered

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Editorial

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Healthcare may seem remote from disciplines such as engineering, product design and architecture, but they have at least one thing in common – the aim of meeting the users' needs. Furthermore, the principles of 'good design' are universal and apply to healthcare as much as to any other discipline. Thus, the methods and thinking of engineers, product designers and architects can be used to solve healthcare problems. Dialogue and collaboration between professionals should be encouraged because current methods and thinking in healthcare do not achieve what is required in the timescales set. For example, the National Health Service in England and Wales plans savings of £20 billion by 2014. Suggestions to meet this objective include cutting budgets and reducing staff levels, but this does not have to be the case. A recent report¹ estimated that around £7 billion could be saved each year by involving patients more effectively in their care. Although the concept of patient involvement has been around for a long time, it sometimes appears that healthcare services are still not designed around the needs of patients.²

Today, chronic conditions such as coronary artery disease, diabetes, congestive heart failure, asthma and depression account for most of healthcare spending.³ Successful treatment of chronic conditions depends on patient compliance, which calls for a healthcare system that is easy to use, puts patients in control, and helps them manage their needs. Over the last years, many countries have experienced a rapid growth in design initiatives. The aim is usually to identify the best process of care and then to improve it by removing delays, unnecessary steps or potential errors.⁴

An example is direct booking for cataract surgery – a procedure often performed on people with diabetes – in a UK hospital trust. Process mapping identified that delays occurred because all referrals were made by a general practitioner to a specialist for further outpatient assessment. Therefore, optometrists (who examine eyes to diagnose vision problems) were trained to assess patients in the community and book those with obvious cataracts directly onto an operating list. As a result, the time between diagnosis and surgery could be dramatically reduced and patient satisfaction levels were high.⁵

There are many other examples of successful projects, all of which have raised hope among policy-makers that long-standing problems in healthcare delivery can be improved through design. Yet, considering that most quality improvement interventions achieve only partial success, it is doubtful whether current efforts will deliver the required change in the time available.⁴ While design efforts to date have focused primarily on a top-down approach to healthcare, a different perspective may be needed where the patients are the drivers for change – that is, a bottom-up approach.⁶ An interdisciplinary team established by the UK Design Council, including designers, policy analysts and sector experts, proposes a co-creation approach based on "a set of new relationships between users, workers and professionals."⁷ Bate and Robert⁸ argue for a shift from management-driven to user-centric services which involve patients at every stage of the design process.

An emerging field in healthcare that could provide the new perspective needed is that of experience-based design. It is about the ideas, emotions and memories that patients have when they move through the service and interact with various 'touch points' – for example: arriving at the hospital, registering with the reception, seeing a doctor, undergoing an examination, seeing a specialist, and leaving the hospital. This is accomplished by identifying the key touch points between the patient and the service, working together with front-line staff at these points, and making the experiences accessible to designers.⁹ Narratives, or stories, provide a window into what people feel and think, making them a suitable method to collect data on patient experiences.¹⁰ A good example of this is the end-of-life-study by Murray *et al.*¹¹ who conducted interviews among patients dying of lung cancer or cardiac failure. The authors found that care for these patients is prioritised by diagnosis rather than need. Finally, interested readers may be directed to a book¹² which explores the topic of experience-based design in detail.



The success of healthcare design depends on various factors, which has led to an increasing interest in understanding *how* and *why* interventions work rather than *if* they work.¹³ It is possible that the patient holds the key to better healthcare delivery, and design initiatives based on their experiences may expand and enrich current approaches. A greater focus is needed on how patients feel and think about the services they receive, because there is no sense in having a great process if the experience itself is bad.⁹ Design professionals use a variety of techniques to incorporate user experience into the design of products and services. Applying their techniques to healthcare could help to create an inclusive system that is functional, safe and satisfying.

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PEER REVIEW

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CONFLICTS OF INTEREST

The author declares that he has no competing interests.