

How simulation techniques and approaches can be used to compare, contrast, and improve care: an immersive simulation of a three-Michelin star restaurant and a day surgery unit

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In this editorial, we present a short five minute documentary-style film to explore how immersive Distributed Simulation can be used to engage members of the public in the experience of care in order to generate a wider discussion on what care means.

Traditionally, and more commonly, simulation in healthcare has been used for training, quality improvement, and assessment purposes. Although this is an obvious and effective use of simulation techniques, little thought has been given to how simulation could be used beyond this.^{1,2} Furthermore, Kneebone³ argues that the current use of simulation has mirrored practice by restricting it to a clinical 'insider' frame, excluding patients, families, the public and even managers, commissioners, policymakers and other sectors from its purpose, design and implementation; even though these perspectives are an essential component of clinical practice that could enhance current approaches to care. Current utilization of simulation techniques and approaches often focuses on single elements of healthcare that mirror healthcare practices rather than looking to transform them, and with limited external involvement. However, we believe its application can be much wider than its current scope. By capitalising on simulations main benefits (the ability to recreate realistic healthcare scenarios in a safe environment), we have been testing's simulations applicability for a range of objectives.

To date, we have used simulation approaches for a number of interventions relating to:

Direct patient care: to engage with primary and secondary care stakeholders in developing new approaches to integrated care⁴⁻⁶; as a tool for multidisciplinary staff and patients to improve adolescent asthma care⁷; for the improvement of end-of-life care by multi-professionals and patients in a hospital setting^{8,9}; and to share the strengths and challenges of maternity care services across a borough of London.¹⁰

Patient and public engagement/involvement: to engage with members of the public in the future of surgery and ethical related issues¹¹; as a tool for public and patient engagement in a new point-of-care diagnostic test¹²; to engage publics in coronary care procedures¹³; to engage parents in the avoidable hospital admissions of their unwell children; and to engage at-risk teenagers in the care pathway of knife crime-related incidents.¹⁴

Educational and engagement means: as an intervention to educate and engage pharmacists (community and hospital) about integrated care and their role in implementing it¹⁵; as an intervention for educating and engaging general practice (GP) receptionists about integrated care and the importance of their role within the whole system^{16,17}; as a teaching module aimed at international healthcare managers to generate insight into the UK health system.¹⁸

These examples illustrate how we have used simulation imaginatively and innovatively to select, abstract and re-present elements of care for purposes such as testing and evaluating a new interventions effects on a care pathway;

designing new models of care; problem solving issues around the integration of care; considering care from the patients perspective in terms of time and sequences; comparing and contrasting healthcare with other sectors; engaging a variety of stakeholders (including patients and publics) in complex care issues and decision-making; and immersing patients, publics and staff in the healthcare experience and healthcare changes over time.

In the simulation presented in the film, we drew on the concept of distributed simulation (portable and low-cost simulation backdrops, props and equipment), and undertook eight immersive simulations across the UK: The Infirmary Medical Museum (Worcester), Glasgow Science Centre (Glasgow), Chelsea & Westminster Hospital (London), and the Royal College of Nursing (London). Each simulation consisted of a clinical encounter at a day surgery unit and a fine dining restaurant. The simulations were designed based on field observations undertaken by a social scientist at Heston Blumenthal's three Michelin-starred 'Fat Duck' restaurant and a day surgery unit in an inner London hospital. The observational frame used, aimed to identify and extract the principles of care from each setting to ensure accuracy during the simulation design process. While physically simple (recreating a restaurant through wall-papered backdrops, tables and restaurant paraphernalia, and a hospital day surgery unit through clinical backdrops, curtains, and hospital equipment), the simulations were conceptually sophisticated. Smells (in the form of food and clinical disinfectant) and sounds (in the form of restaurant music and beeping monitors) were also simulated. Real waiting staff (trained by the Fat Duck team) and real clinicians (surgeons, anaesthetists, and nurses) undertook their roles in the simulations which members of the public were immersed in for ten minutes per setting. Once the immersive experience was complete, the public, waiting staff and clinicians were invited to take part in a discussion that compared and contrasted the different approaches to care and explored what was potentially transferrable between the sectors.

This unorthodox use of simulation enabled us to engage with members of the public in the experience of care in two disparate but complementary settings, paving the way for an informed discussion on what care means, what are its main principles, what is transferrable between the sectors, and how can current systems and approaches to care be improved.

The short 5 minute documentary presented provides a snapshot of how this unique use of simulation unfolded. The video can be accessed via: <https://vimeo.com/282084536>

SMW and RK contributed to the design. SMW and TK undertook the events. All authors have been involved in the final product.

The study received approval from the Ethics Board of the University of Greenwich (UREC/17.1.5.12). Filmed participants provided consent on the day of filming by signing the ethics consent form and a filming consent form.

The authors declare no competing interests.

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