how to

teach using simulation in healthcare

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WILEY Blackwell

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Contents

List of figures, vii

List of tables, ix

About the authors, xi

Preface, xv

Chapter 1: Introduction, 1

Chapter 2: Simulation-based medical education (SBME): some specifics, 3

Chapter 3: Simulation in (medical) education: some background, 13

Chapter 4: Equipment in SBME: more than just a mannikin?, 27

Chapter 5: Physical and psychological realism, 37

Chapter 6: Simulation mapping and scenario design, 45

Chapter 7: Running a simulation session: some practicalities, 55

Chapter 8: Formative assessment and feedback, 65

Chapter 9: Summative assessment, 73

Chapter 10: Human factors, ergonomics and non-technical skills, 83

Chapter 11: Five case examples, 97

Chapter 12: Using new technology to enhance learning, 119

Chapter 13: Commissioning a simulation centre, 139

Chapter 14: Training for simulation faculty, 151

Chapter 15: Conclusions and next steps, 157

Chapter 16: Annotated bibliography, 159

Index, 163

List of figures

3.1 Experiential learning cycle, 14
3.2 Zone of proximal development (ZPD), 19
3.3 Activity theory, 23
3.4 Activity theory within emergency medicine, 24
3.5 Activity theory within simulation suite, 24
4.1 Part task trainer for cannulation, 30
6.1 Achieving conscious competence, 46
6.2 Generic competencies for specific scenarios, 47
6.3 Specific competencies related to management of shocked patient, 48
6.4 Example scenario, 49
7.1 The SaIL Diamond, 60
7.2 Sample evaluation form, 62
8.1 ALS treatment of a shockable rhythm, 66
9.1 Miller's pyramid, 74
9.2 Component elements of medical expertise, 75
10.1 Reported degree of harm to patients NPSA 2011–12 data, 84
10.2 Reported incidence types in England NPSA July 2011–June 2012, 84
10.3 SEIPS, 86
10.4 Model of communication, 91
11.1 The zone of simulation, 99
11.2 The Preston zone of simulation, 100
11.3 Initial steps in planning to receive a trauma patient, 111
11.4 The team approach to the primary survey, 112
11.5 Individual patient pathway, 113
12.1 Dynamic and static elements of the Asthma scenario, 125
12.2 iCoda template for asthma, 125
12.3 A tagged timeline, 126
12.4 Marking matrix, 126
12.5 iCoda template for non-technical skills, 128

13.1 Part task trainer, 142
13.2 Multipurpose space, 143
13.3 Adaptation of existing facility, 144
13.4 Plans for customised simulation centre, 145
13.5 Wet room, 146

List of tables

8.1 Distinction between feedback and debrief, 67
10.1 Styles and definitions in leadership, 93
10.2 Situational leadership, 94
11.1 Structure of undergraduate simulation experience, 98
11.2 Sample issues identified for debrief, 107
11.3 Number of actions against learning outcomes of the patient safety programme, 107
11.4 Examples of good practice, 108
11.5 Number of areas of good practice against learning outcomes of the patient safety programme, 108
12.1 Use of social media, 132

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We would also like to thank the following:

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occurred. This information can then be used to change policies or develop the environment to prevent recurrence and reduce patient risk. With Jo-Anne Halliwell, he wrote 'Enhancing patient safety through multidisciplinary *in situ* simulation' in Chapter 11.

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Preface

Professor David Gaba, one of the pioneers of simulation training in healthcare, observed in 1992, '… no industry in which human lives depend on the skilled performance of responsible operators has waited for unequivocal proof of the benefits of simulation before embracing it'. Fortunately, the evidence to support this worthy sentiment now exists in abundance and simulation training for healthcare professionals is in widespread use.

The key educational theory underpinning the value of simulation training, experiential learning, is far from a new concept, having been espoused in ancient times by both Confucius and Aristotle but more recently by David A. Kolb whose experiential learning cycle might have been specifically designed with medical simulation in mind. Even without an understanding of these formal educational principles, however, it is surely self-evident that training doctors, nurses and allied health professionals in a safe and supportive learning environment where they can practise without the risk of doing any harm is a good idea – a view supported by data collected from patients and carers. The authors cover experiential learning and allied theories in a complete chapter of this book and helpfully point the reader to additional, more in-depth texts on these subjects.

I do not know anyone involved in simulation training who does not feel a profound sense of reward and enjoyment in supporting learning in this environment, but it is not easy. This book highlights very well the importance of fastidious design of learning outcomes, careful preparation of the scenarios, tools and technology and, most importantly, focused training in debriefing skills for faculty members. A core tenet of experiential learning is the requirement for reflective practice which is most effective when supported by facilitators experienced in the use of what John Heron, in his Six-Category Intervention Analysis, would call 'authoritative and facilitative interventions' – learning outcomes can so easily be jeopardised by the inexperienced debriefer.

We were, of course, using simulation in medicine long before the advent of the technological advances which now support this training so effectively

and I very well remember practising the siting of epidurals using a simple orange to give that distinctive feel of loss of resistance. However, colleagues in the world of engineering and computer technology have opened up a world of novel, cost-effective and highly portable solutions to support simulation training both in our education centres and in real clinical settings. None of this training would be possible without the support of the resourceful and inventive simulation technologists in our centres. These are the invaluable team members who configure the AV systems to support debriefing, programme a vast array of bespoke scenarios, reconfigure and repair increasingly complex technologies and design innovative solutions to produce bleeding into drains or the appearance of third-degree burns on actors and mannikins. We now have apps for iPhones and Android, wireless mannikins and e-learning platforms which provide extraordinary flexibility in the development of innovative learning opportunities, all of which are explored and signposted in this book.

The overarching purpose of simulation education is the transfer of training received to the clinical workplace, i.e. to take the new or enhanced skills back to the ward or operating theatre to improve the safety and care of our patients. No practitioner of simulation-based education would ever say that simulation is the answer to all the challenges we face in medical education but it is a very powerful adjunct to clinical apprenticeship and deserves to be a cornerstone in the education of healthcare professionals from all backgrounds. Simulation training can support the development of competencies in both technical and non-technical skills and plays a vital part in enhancing the teamworking skills so essential in the management of clinical crises. There is now clear evidence that regular crisis resource management training incorporating simulation for multidisciplinary teams in healthcare improves safety-critical behaviours and, crucially, patient outcomes, and Chapter 10 provides constructive direction in the most effective use of simulation for safety training.

This book has been written by authors with a combined experience of over 50 years in simulation training for healthcare professionals. They have put together a text that concisely covers all the aspects of the successful design and organisation of simulation training, from the construction of scenarios and use of the huge variety of technology to support simulation-based education to the design and operation of a simulation centre. *How to Teach Using Simulation in Healthcare* joins the inventory of similar 'How to' titles from Wiley at an opportune moment when time for training healthcare professionals is being compressed, as never before, by competing demands for service delivery. This concise and pragmatic publication will be a welcome

support and useful reference for experienced and novice educators in healthcare who are using simulation to train healthcare professionals and I look forward to many future editions.

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