Project Title

Using Simulation to Improve the Confidence and Preparedness of Medical Students to Care for Dying Patients and their Families

Summary

Introduction

Of all doctors, Foundation Year 1 (FY1) trainees spend the most time with dying patients, providing care to an average of 30-40 such patients. Despite this, annual feedback regularly reports that FY1 doctors feel their undergraduate training fails to prepare them to care for dying patients and their families. End-of-life care teaching within UK medical schools varies greatly in terms of quantity and variety of teaching methods used. Lack of exposure to dying patients at undergraduate level remains a significant barrier to teaching end-of-life care, and whilst there has been a growing body of evidence to support the use of simulation-based teaching, its use in undergraduate palliative care education remains low.

The project

A two-year mixed-methods research project was undertaken to identify whether simulation could be used to improve both the confidence and preparedness of medical students to care for dying patients. 38 fourth-year medical students at Brighton and Sussex Medical School (BSMS) took part in the simulated study. Students participated in an individual scenario where they were required to care for a dying patient (hi-fidelity mannikin) and interact with a visiting relative (actor). Each scenario focused on an aspect of patient care at the end-of-life (symptom control, clinically assisted hydration, medication side effects, appropriate oxygenation). The relative was able to ask the student questions pertaining to the specific scenario. One feature of the simulations was that the patient died during some of the scenarios, and this was planned and occurred irrespective of the student's actions. Whilst one student was undertaking their scenario, the other four were able to observe through a one-way mirror. This added depth to the learning process. Simulations were facilitated by experts in palliative medicine who provided constructive feedback. The study was endorsed by the university Research Governance and Ethical Committee, with particular focus on student safety given the nature of the subject matter.

Pre, post, and six-month post-simulation measures of confidence were undertaken using the validated Self-Efficacy in Palliative Care (SEPC) questionnaire. Results demonstrated a statistically significant increase in confidence in the post simulation period, which was sustained at 6 months. Post simulation focus groups with subsequent thematic analysis of data demonstrated that students felt the simulations were realistic and provided a safe environment in which to learn how to care for the dying without fear of patient harm. Students felt the simulations would be a valuable addition to the undergraduate curriculum.

Impact

Research outcomes have led to 4 peer-reviewed publications, with a 5th in development, and results have been presented to both national and international audiences. The simulations have been developed and integrated into the final year undergraduate curriculum at BSMS. In the 2022-23 academic year we successfully simulated our first cohort of 138 final year students across seven regional centres within Surrey and Sussex. This work has led to collaborations with other medical schools and educators who are keen to develop such a resource. The next stage is to gather data on student confidence for the entire cohort during this academic year. (Word count 500)

Who was the funder for this project?

This research project was fully funded by the University of Sussex as part of a Medical Doctorate in Medical Education

Are there any links or resources you want to share?

• Wells G, Llewellyn C, Hiersche A, Minton O, Barclay D, Wright J. Care of the Dying – medical student confidence and preparedness: mixed-methods simulation study. BMJ Supportive and Palliative Care. 2022. DOI: http://dx.doi.org/10.1136/spcare-2022-003698

• Wells G, Llewellyn C, Hiersche A, Minton O, Wright J. Medical student anxiety in caring for dying patients and their family: a cross-sectional study. BMJ Supportive & Palliative Care. 2021. DOI: 10.1136/bmjspcare-2021-003331

• Wells G, Youssef E, Winter R, Wright J, Llewellyn C. Medical student confidence in care of the dying and their family: a systematic review. BMJ Supportive & Palliative Care. 2021. DOI: http://dx.doi.org/10.1136/bmjspcare-2019-001977

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