

potential. Students reported enhancement of in person and remote communication as well as clinical capabilities in high acuity environments.

Conclusion: Students reported the SPP week as an acceptable means of replacing one week of PBL, enhancing the preparedness for clinical environments and sustainably increasing placement capacity by providing 4440 hours of simulated PBL.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

REFERENCES

1. Stanley L, Royle H, Ewles S, Gay S, Voegeli D, Cooks K. 166 Sequential Simulation as Replacement for Standard 4-Week Practice-Based Learning (PBL) for First-Year Undergraduate Physiotherapy Students. *International Journal of Healthcare Simulation*. 2021 Dec 23;1(null):A40.
2. Topol E. The topol review. Preparing the healthcare workforce to deliver the digital future. 2019 Feb;1-48.
3. Lowe CM, Heneghan N, Herbrand A, Atkinson K, Beeton K. Project Report For The Chartered Society of Physiotherapy. 2022

CONTENT, SYSTEM

A45

DEVELOPING LOW CARBON CARE – USING SIMULATION TO CALCULATE AND REDUCE CARBON EMISSIONS

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Background and aim: Climate change is considered one of the most pressing global concerns for the future and the single biggest health threat [1]. Healthcare delivery is a major contributor to the climate crisis, producing 4.4% of net carbon global emissions today [2]. One of the largest contributors to NHS carbon emissions is the use of equipment, consumables and clinical care itself [2]. Therefore, clinical staff have a significant part to play in reducing carbon emissions and achieving national carbon reduction targets. However, they must be carbon literate and understand the impact of personal practice on global carbon emissions and be able to identify ways to deliver low carbon models of care [3]. Simulation could play a significant role in educating and developing sustainable practice in healthcare students through a system thinking approach. Allowing students to examine the environmental impact of healthcare delivery and support innovative solutions to reduce carbon emissions without compromising care.

The aim was to firstly increase nursing students' awareness of the carbon emissions from the delivery of patient care. Secondly to improve clinical decision-making in the selection and implementation of interventions to enable the delivery of low carbon care.

Activity: Undergraduate nursing students took part in a specifically designed simulation scenario. Students completed the scenario of a patient presenting to the Emergency Department with exacerbation of Chronic Obstructive Pulmonary Disease (COPD), implementing care and interventions as clinically indicated. After completion of the simulation students then calculated the carbon emissions from the clinical resources they used, using the Centre for Sustainable Healthcare carbon emissions calculation.

Findings: Debriefing identified that students did not consider sustainability and carbon emissions in their current

clinical decision-making. Students were shocked by the amount of carbon emissions generated from interventions. Students identified areas where they could reduce carbon emissions without compromising care such as inappropriate use of gloves, using dry powdered inhalers, and reducing unnecessary cannulation.

Conclusion: Simulation could play a pivotal role in developing sustainable clinical decision-making skills in healthcare students and staff. Actively calculating carbon emissions allows students to directly see the environmental impact of their practice, increasing carbon literacy and stimulating low carbon care practice. This use of simulation should be explored further by educators across professions to support both national and global climate change policies.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

REFERENCES

1. Health Care Without Harm (2019) 'Global health care sector is a major contributor to the climate crisis' [Internet] Available at: <https://noharm-global.org/articles/press-release/global/global-health-care-sector-major-contributor-climate-crisis> [Accessed 13th April 2023]
2. Greener NHS (2020) 'Delivering a 'Net Zero' National Health Service'. [Internet] Available at: <https://www.england.nhs.uk/greenernhs/publication/delivering-a-net-zero-national-health-service/> [Accessed 13th April 2023]
3. Sawyer, M: Why all health professionals should be carbon literate and practise sustainably [Internet]. The BMJ. 2020. Available from: <https://blogs.bmj.com/bmj/2020/11/20/matthew-sawyer-why-all-health-professionals-should-be-carbon-literate-and-practise-sustainably/> [Accessed 13th April 2023]

DESIGN

A46

SPEED: AN EMERGENCY DEPARTMENT SIMULATION TRAINING MODEL WHICH DOES NOT AFFECT PATIENT WAITING TIMES

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Background and aim: There is a well-recognized tension between clinical service provision and participation in learning events for junior doctors (JDs) in the UK [1]. JDs frequently report that they are unable to attend regular teaching due to departmental clinical pressures, representing lost opportunities for their training and development. Therefore, there is need for development of training methods which minimize impact on clinical service delivery.

Aims: To develop a simulation training model for Emergency Department (ED) JDs which would a) deliver tailored learning objectives according to the participants' level of training and b) have minimal impact upon ED service provision.

Methods: The 'Simulation and Personalised Education in the Emergency Department' (SPEED) model was developed. On SPEED days, JDs and advanced clinical practitioners (ACPs) who were undertaking clinical duties in ED on that day were invited on an individual basis to participate in a twenty-minute clinical simulation. Upon completion, the participant underwent a ten-minute debrief to reinforce predetermined learning objectives and supply feedback to simulation tutors