



The climate emergency, how can pharmacy make a difference?

6ER-003



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Introduction

Climate change is acknowledged as “the most significant health threat that modern society has ever faced”¹. Worldwide, the healthcare sector produces around 4.6% of global emissions¹. Closer to home, healthcare in the United Kingdom (UK) produces around 5.4% of our total emissions², with medicines alone responsible for 25% of the NHS’s carbon emissions³. Other healthcare professional colleagues have acted faster to help our planet, with the British Medical Association and the Royal College of Nursing declaring a Climate Emergency in 2019. The Royal Pharmaceutical Society, due to effective lobbying by Climate Activists such as PharmDeclares, followed suit in 2021. The aim of this research was to identify any current sustainable healthcare teaching included within pharmacy degrees in the UK. Also, to establish whether respondents felt it was important for sustainability to be included within pharmacy degree programmes and if so then what specific content should be included.

Methods

Two questionnaires (staff and student) were developed using Microsoft Forms. Data collection was conducted over a 3 week period between January and February 2022. Questionnaire 1 was distributed solely to pharmacy students currently undertaking their 4th year of the MPharm degree in the United Kingdom (28 schools of pharmacy), and Questionnaire 2 was sent to Heads of School/Programme directors. Data was analysed using Excel, Chi squared analysis was used to identify if there was any significant differences. Responses were separated based on the geographic region of the respondents university to identify if there were any differences in responses throughout the UK. Ethical approval was gained from the Faculty of Medicine, Health and Life sciences Research Ethics committee, Queens University Belfast.

Results

Questionnaire 1; A total of 56 students in their 4th year of a pharmacy degree in the United Kingdom responded. Forty-two responses were from Northern Irish (NI) Universities (30.2% of the total student cohort in NI) and 14 were from Scottish Universities (4.7% of total student cohort in Scotland). No responses were received from pharmacy students studying at Welsh or English universities. **Questionnaire 2;** Eight Schools of Pharmacy (28.6%) responded to this questionnaire; 5 English universities, 2 NI universities and 1 Scottish university. Most student respondents believed that their curriculum contained no content on sustainability, despite staff from England, Scotland and NI reporting at least 1-5 hours in the curriculum (Figure 1). The majority of respondents (students: 98.2%; staff: 87.5%) thought sustainability teaching was important.

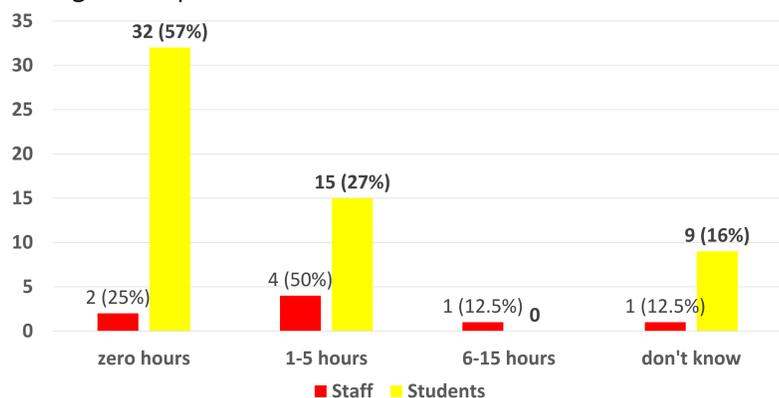


Figure 1: Number of hours of teaching relating to Sustainable healthcare in the MPharm curriculum

The three main content areas relating to sustainability in the MPharm curriculum were 1. Antimicrobial stewardship, 2. The environmental impact of medicines 3. Sustainability in laboratories. Most staff responded that they did not know enough about sustainability in healthcare to be able to teach it (Figure 2).

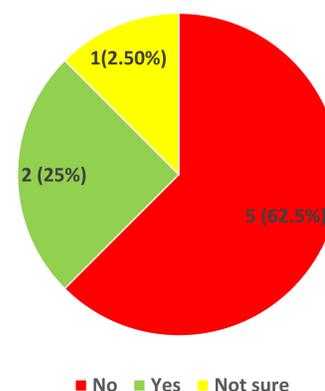


Figure 2: I know enough about sustainability in healthcare to teach it

One hundred percent of student respondents believed that their MPharm programme had not prepared them to apply sustainability in their future pharmacy practice, and 48% (n=27) agreed that the sustainability efforts of their potential employers would influence their decisions in applying or accepting jobs (27% disagreed (n=15) and 25% said they didn't know (n=14).

Discussion

Despite the lower than expected response rate to these questionnaires, our results show that sustainable healthcare teaching within UK pharmacy degree programmes is limited. There is a disconnect between student respondents “lived experience” of sustainable topics in the MPharm and staff knowledge of the intended curriculum, which may suggest that there is a need to “signpost” existing sustainable topics. The study does highlight that there is an awareness of a need for this content to be included in future MPharm curriculum by both student and staff respondents. Since this study began, a UK wide group of academic pharmacy teaching staff has been established and are lobbying the General Pharmaceutical Council to include learning outcomes of sustainable practice in all MPharms across the UK.

References

1. Watts N et al (2020). The 2020 Report of The Lancet Countdown on health and climate change: responding to converging crises. Available from: [https://doi-org/10.1016/S0140-6736\(20\)32290-X](https://doi-org/10.1016/S0140-6736(20)32290-X) (Accessed 29th May 2022)
2. Healthcare's climate footprint. ARUP. 2019. <https://www.arup.com/perspectives/publications/research/section/healthcares-climate-footprint> (Accessed 29th May 2022)
3. NHS England and NHS Improvement (2020). Delivering a 'Net Zero' National Health Service. Available from: [delivering-a-net-zero-national-health-service.pdf](https://www.nhs.uk/england-delivering-a-net-zero-national-health-service/) (england.nhs.uk) (Accessed 29th May 2022)

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