

SKIN-DEEP SUSTAINABILITY: IT IS TIME FOR DERMATOLOGY EDUCATION TO FOCUS ON THE ENVIRONMENT

*Rachel Blyth**

*Royal Bromton Hospital, London
SW3 6NP, United Kingdom*

James Bevan

*University of Southampton,
Southampton, United Kingdom*

DEAR EDITOR,

We recently reported the findings from a review of medical school curricula in the United Kingdom (UK) on planetary health and sustainability teaching (Bevan et al., 2022). Our study used the General Medical Council's (GMC) adopted 'Educating for Sustainable Healthcare – Priority Learning Outcomes' created by the Centre for Sustainable Healthcare to evaluate UK medical school coverage of planetary health and sustainability topics (Centre for Sustainable Healthcare, 2013). There are three learning outcomes, as shown in Table 1, with an additional 13 more detailed sub-learning outcomes. As the GMC set the standards for UK undergraduate medical education, we felt these outcomes were the most relevant to use as the gold standard for our audit. However, they are broad and provide less subject-specific guidance, especially with regard to dermatology.

Our study findings suggest that the teaching of planetary health and sustainability topics varies widely amongst medical schools. Disappointingly, despite a growing evidence base linking climate change and dermatological conditions, the teaching of dermatology in this context had the joint lowest 'mean estimated teaching time' and 'percentage of courses covering the topic' when compared with other subject areas (Bevan et al., 2022).

In recent years, various global organisations have developed learning outcome lists to guide incorporating planetary health and sustainability teaching into the undergraduate curriculum, a few of which contain dermatology-specific guidance. Published learning outcomes vary considerably from broad to highly specific and detailed. As such, knowing which learning outcomes to prioritise in an already densely packed medical curriculum can be challenging, especially for educators with less planetary health or sustainability experience. We have found two particularly useful resources for dermatology educators.

Climate Resources for Health Education (CRHE), a global health professional-led platform sponsored by the Columbia School of Public Health,

*Corresponding author: e-mail: Rachel.blyth4@nhs.net

Table 1. The three priority learning outcomes from the ‘Educating for sustainable healthcare – priority learning outcomes’ (Centre for Sustainable Healthcare, 2013)

1	Describe how the environment and human health interact at different levels.
2	Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
3	Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

Table 2. The three dermatology-related learning objectives set by the Climate Resources for Health Education (Climate Resources for Health Education, 2022)

1	Describe mechanisms by which increased temperatures and decreased ozone contribute to skin cancer rates.
2	Describe the mechanism by which air pollutants and particulate matter exacerbate dermatologic conditions (e.g. pemphigus and atopic dermatitis).
3	Describe how increased water temperatures result in aquatically transmitted dermatologic infections.

has outlined three specific dermatology learning outcomes (see Table 2) that could be integrated into dermatology sustainability teaching at medical school (Climate Resources for Health Education, 2022).

The Medical Schools Council has also published guidance on strategies to introduce sustainability and global health topics into the undergraduate curriculum and highlights additional health impacts of the climate crisis by medical specialism (Tun and Martin, 2022). Regarding dermatology, they suggest focusing on the changing prevalence and severity of atopy and infectious skin conditions with temperature increase and changing patterns of skin cancer.

These learning outcomes raise issues of varying significance in terms of global morbidity and mortality. Prolonged ultraviolet radiation exposure and developing skin cancers are well established, and a history of sun exposure is integral to the dermatological history (Park et al., 2022). Increased levels of pollutants and particulate matter from wildfires have been linked to increased severity of atopic dermatitis (Parker, 2021; Park, et al., 2022). All these impacts will grow in importance as climate change progresses and should be considered for incorporation into the undergraduate medical curriculum.

Medical students will encounter dermatological conditions throughout their careers, regardless of whether or not they choose to specialise in dermatology. Therefore, it is vital that they are equipped with the knowledge of how climate change will affect dermatological diseases. The above learning outcomes are useful to guide the integration of these topics into undergraduate

medical teaching. We are very excited about this new journal focusing on sustainable dermatology in practice and hope it will instigate a movement for greater coverage of planetary health and sustainability topics in dermatology education.

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CONFLICT OF INTEREST

The authors declare that they have no competing interests.

