

Planetary Health Module – Developing Environmentally Conscious Graduates

Keywords: Sustainability, Future-focused curriculum, Teaching innovation

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Introduction

Planetary health and human wellbeing are inextricably linked and environmental degradation is threatening global health. Healthcare delivery and medicines use have a large ecological footprint. It is thus essential to educate and train the healthcare workforce to prepare for, and respond to the planetary crisis by equipping them with the knowledge, skills, and values necessary to practice environmentally conscious care delivery.

Initiative

An elective module focused on planetary health and sustainability for pharmacy students was developed for Year 2 students aimed at developing the eco-literate student in order to empower them to advocate for planetary health as individuals and collectively as future healthcare practitioners. Curriculum material drew from the Planetary Health Education Framework (Fig.1), the AMEE Consensus Statement on Planetary Health Education for Sustainable Healthcare and published pharmacy curricula. The module was developed around key themes including:

- Earth science and the Planetary Boundary Framework – anthropogenic transgressions
- Linking planetary, human health wellbeing and the Sustainable Development Goals
- The human health impacts of climate change, plastic use and pollution
- Planetary health mitigation and adaptation strategies at an individual level
- The role of healthcare delivery and medicines use and key mitigation and adaptation strategies for HCPs
- The tools of Sustainable Quality Improvement (SusQI)
- Sustainable pharmacy practice

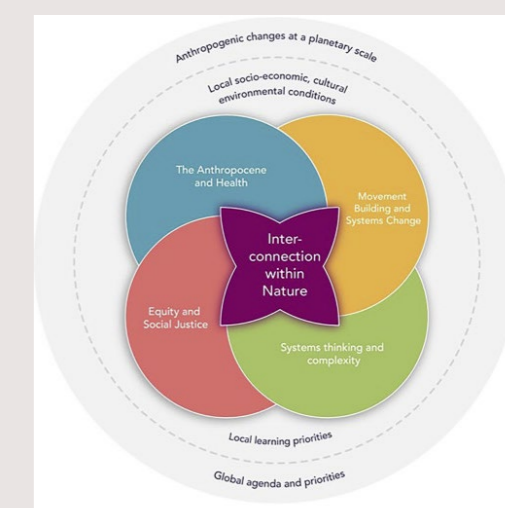


Fig. 1 Planetary Health Education Framework

Cognitive learning outcomes were complemented with adaptive learning outcomes to enhance critical thinking and movement building skills and instill values, as mandated in the planetary health education frameworks. The pedagogical approach was multi-modal including some didactic teaching, but with a considerable focus on active-learning strategies i.e. problem-based, case-based, simulation and role play, and reflective practice. Situated-learning focused on nature-focused field trips. To reflect the transdisciplinary nature of the response required to address planetary health solutions contributions were obtained from a variety of disciplines including practicing surgeons, community pharmacists, laboratory sciences, and externally from agriculture and fashion industries.

The key challenge in delivering the module was shifting from the traditional translational science pedagogical approach prevalent in teaching and learning in the healthcare sciences. Knowledge alone will not prompt the critical behavioural changes required to instill respect for the environment and planet, and drive individuals to change their behaviours either personally or professionally. Based on experience, there is a clear need to adopt a values-based pedagogy resulting in shifts in the approaches to the various modular themes i.e. less didactic teaching, more in-class discussion opportunities and overall, less strict 'timetabling'. This may be framed as a translational humanities approach to teaching fostering critical thinking, commitment to human rights and fairness, the capacity to adapt and to engrain values-driven action to drive the environmentally conscious graduate.

Outcome

The overarching theme across student feedback was that content was 'eye-opening'. Students were grateful to have gained the insight to allow them to take responsibility in their future practice and as individuals. During the module the recurring adage of 'every action counts and does make a difference' was emphasised at all contact sessions, and this was said to have been encouraging, and allowed them to communicate these key messages to others. On a practical level, students recognised the shared responsibility involved to bring about changes including public and political engagement, evidence of critical thinking and movement-building skills. Learning from teaching has been critical in fostering quality enhancements to the module. Primarily, the need to stress the positive over the negative at all times is essential to highlight the many ways we, as individuals, healthcare providers and pharmacists, can and do make a difference, despite the bleak planetary health outlook. This has resulted in reducing content on excessively negative content on planetary and human health impacts, turning swiftly to examples of solutions and methodologies to facilitate their implementation using active-learning methods.

The learnings from teaching in this module have influenced teaching and assessment across other modules. Sustainable healthcare and environmentally conscious pharmacy practice is included across clinical teaching focusing on the four principles of sustainable healthcare i.e. prevention, self-care, lean pathways and low-carbon alternatives. Interaction with faculty on areas pertinent to their teaching is also occurring. The need to instill values of social equity and awareness among students has also resulted in novel assessment initiatives with the co-creation of assessments in partnership with students focused on community engagement/volunteering, self-care, communication with the public, with submissions requiring a significant creative element (Figs 2, 3, & 4).



Fig. 2 Social prescribing initiative



Fig. 3 Self-care initiative



Fig. 4 Volunteering