



# Enhancing Sustainable Healthcare Literacy in Dietetic and Physiotherapy Students through Experiential Learning

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## Introduction



Climate change poses a significant threat to human health (1), however formal education on sustainability within healthcare programmes remains limited, fragmented and monodisciplinary (2). Healthy Eating Active Living (HEAL) is an interprofessional experiential short course learning initiative for dietetics and physiotherapy students at University College Dublin, with sustainability embedded as the overarching theme.

## Aim



Evaluate changes in students' perceived knowledge, skills, attitudes, beliefs and practices towards sustainability, planetary health and sustainable healthcare following participation in HEAL.

## Results

Familiarity to sustainability concepts, planetary health and the role of a healthcare professional improved significantly post intervention (**p<0.001**). Perceived knowledge and skills around sustainable healthcare practices, collaborative practice and problem solving to resolve complex challenges also improved significantly (**p<0.05**). Beliefs and attitudes around sustainability, planetary health and sustainable healthcare practices showed positive improvements although these changes were not statistically significant with participants reporting strong beliefs and attitudes at both timepoints. Lack of knowledge and skills as a barrier to sustainable healthcare practices decreased significantly post intervention (**p<0.05**). Key results are presented in **Graphs 1 and 2; Table 1**.

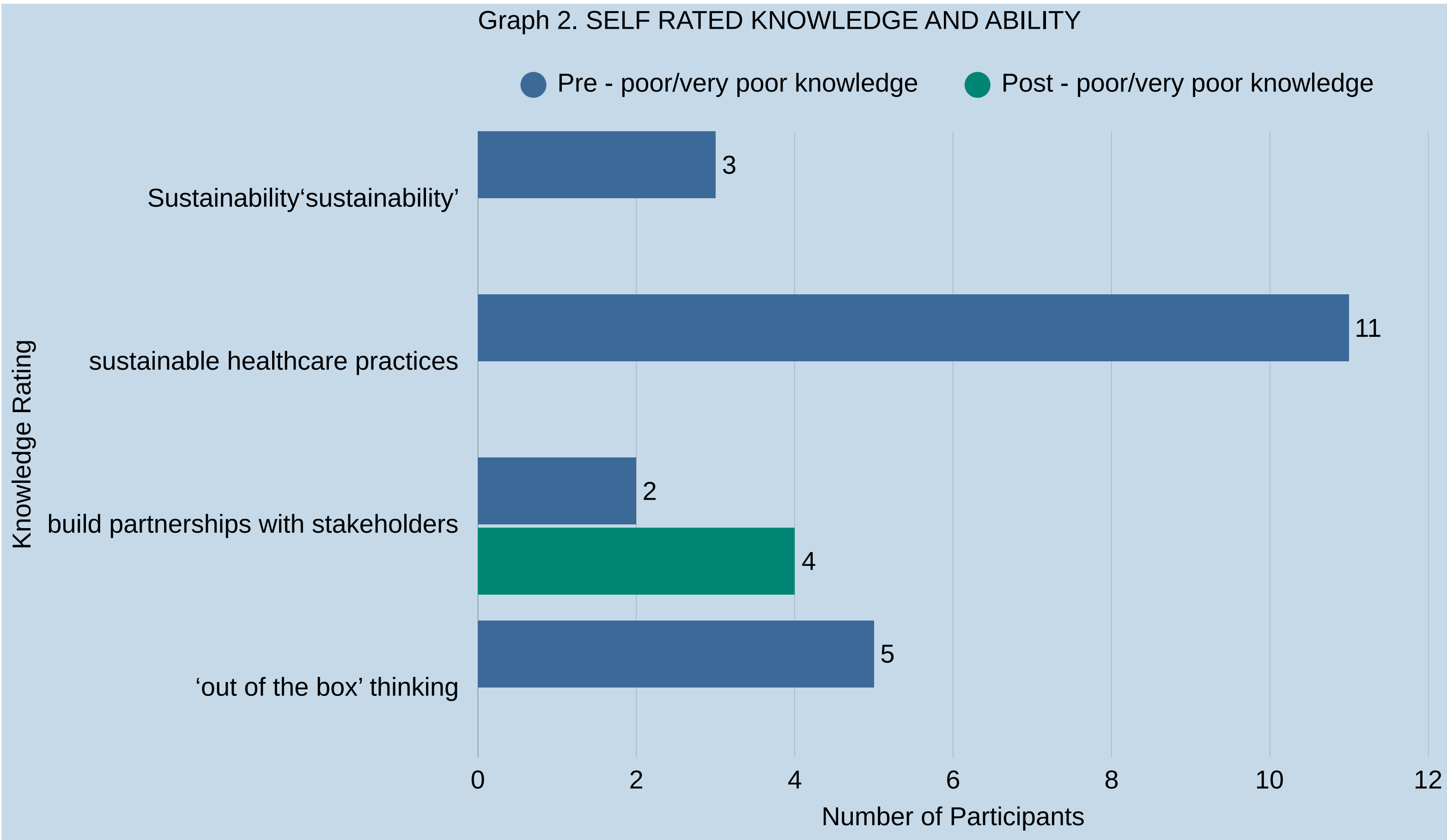
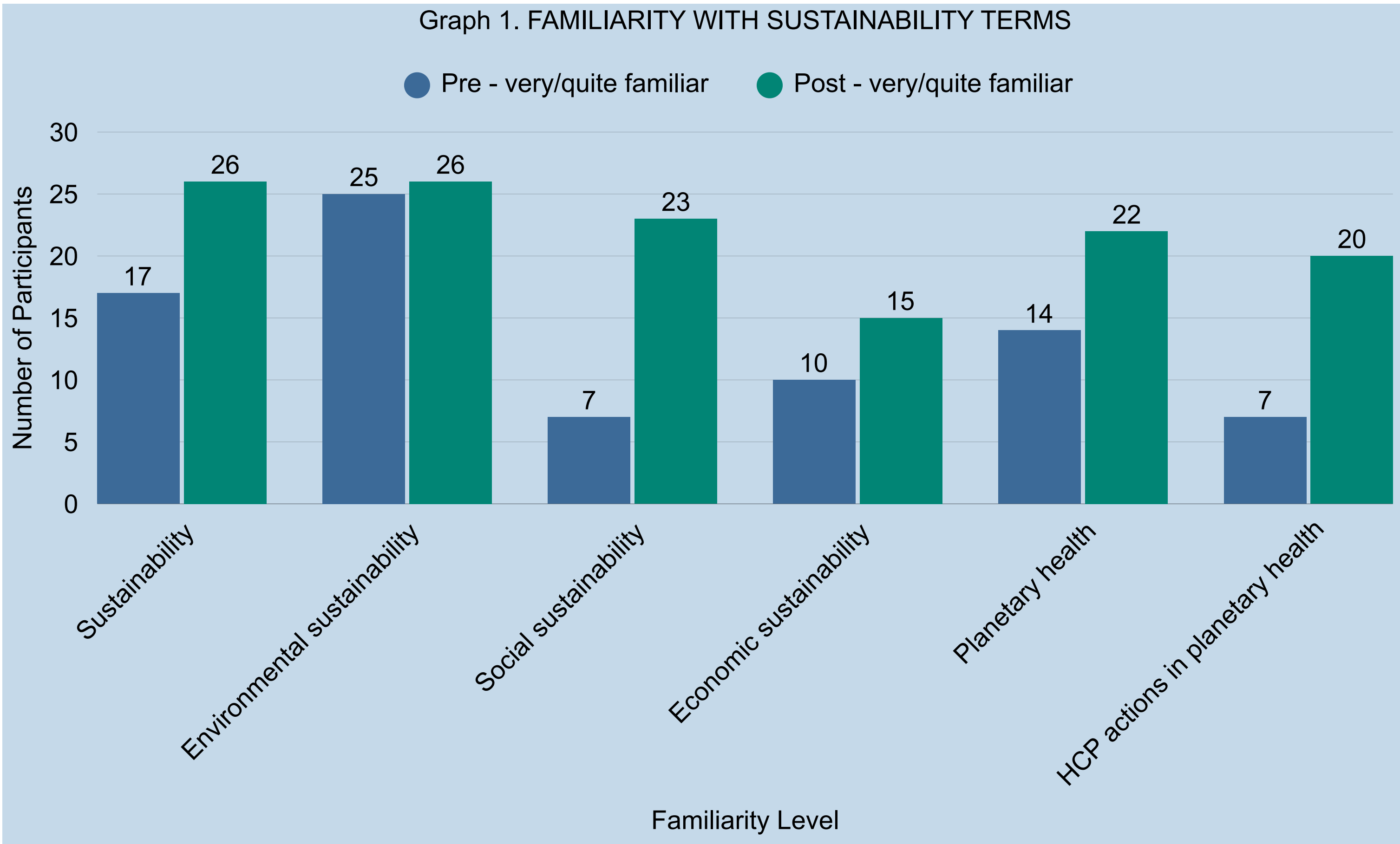
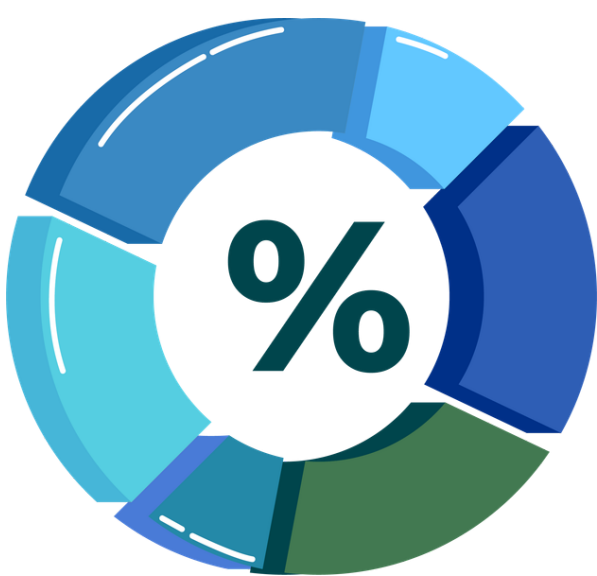


Table 1. Likert rating of sustainability belief questions pre- and post-intervention.

| BELIEF                                      | PRE MEDIAN | POST MEDIAN | P-VALUE |
|---------------------------------------------|------------|-------------|---------|
| Sustainability is important                 | 3 (3-4)    | 4 (4-4)     | 0.015   |
| Sustainability influences your decisions    | 2 (2-3)    | 3 (3-3)     | 0.001   |
| Climate change is a concern to human health | 4 (3-4)    | 4 (4-4)     | 0.018   |
| Confident to implement actions              | 2 (1-2)    | 3 (2-3)     | 0.001   |
| Motivated to implement actions              | 3 (2-3)    | 3 (3-4)     | 0.006   |

Likert ratings (1 = Strongly agree, 5= Strongly disagree) of students beliefs' towards sustainability, planetary health and sustainable healthcare practices following participation in HEAL. All data presented as median (25th-75th quartile range). **p<0.05**.

## Methodology

**Study design:**

**27**

Item bespoke anonymous survey was administered Pre- and Post-intervention.

**Participants:**

**52**

Students enrolled: Dietetics (n=21 Pre; n=16 Post) and Physiotherapy (n=24 Pre; n=11 Post)

**Outcomes measured:**

Knowledge, skills, attitudes, beliefs and practices towards sustainability, planetary health and sustainable healthcare.

**Statistical analysis:**

Pearson's Chi-Square tests examined significance of changes, with p <0.05 indicating statistical significance.

## Discussion

Participation in an experiential learning experience led to significant improvements in dietetics and physiotherapy students' familiarity, knowledge, and skills in sustainability, planetary health and healthcare practices.

Lack of knowledge and skills as a barrier to sustainable healthcare practices decreased significantly.

Positive attitudes and beliefs were maintained throughout the experience.

## References

1- World Health Organization. Climate change. Geneva: WHO; 2023. Available from: <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

2-Elfghi M, Galvin E, Bennett D et al. Climate Change and Sustainability in Health Professions Education: A Realist Review Protocol [version 2; peer review: 2 approved]. HRB Open Res 2026, 8:122 (<https://doi.org/10.12688/hrbopenres.14282.2>)