Planetary Health Student Club:

Dental Students Movement for Sustainable Oral Healthcare

Topic Area(s)

* Education and workforce;

Please specify your project approach

Mitigation only

Key message / aim

The aim of the Planetary Health Student Club is to promote sustainable oral health care, spread awareness regarding the impacts of environmental changes on oral and general health, and the impact of oral healthcare on the environment.

What was the problem?

The oral healthcare sector, despite contributing significantly to carbon emissions and affecting human health, is underrepresented in the planetary health movement. Climate change is causing harm to patient health and potentially affecting oral health services, but health sciences overlook the interconnectedness of other planetary systems. Insufficient knowledge on the health effects of climate change among India's dental profession impedes proactive attempts to improve global health. Given that these changes are occurring right now, oral healthcare professionals urgently need to be prepared concerning planetary health.

It is essential that the dental fraternity is well informed, aware and prepared to deal with the consequences to provide appropriate & adequate care when the necessity arises.

What was the solution?

The Planetary Health Student Club (PHSC) was established by V. S. Dental College and Hospital in 2022 as the first student-led effort, with faculty aid, to address the knowledge and awareness gap within the dental fraternity.

The club has since been dedicated to establishing a robust administration and structure, executing various activities:

1. Awareness Campaigns:
2. Created and implementing 'Sustainability Guidelines' for college activities and meetings.
3. Patient education material and dedicated magazine inclusive of planetary health and climate change related articles.
4. Campus clean-up drive followed by multiple reinforcement sessions to educate regarding effective waste management.
5. Planetary Health Lecture Series with the completion of two lectures on orchids conservation and bio-medical waste management for students and faculty.
6. Water Conservation Awareness campaign throughout the year initiated to create awareness about the water wastage during various dental practices and other uses in the campus.
7. Initiation of the pilot for the Planetary Health Report Card (PHRC)-Dentistry and global lauch of the Dental PHRC this year.
8. Training Program: The faculty lead of the club was successful in the inclusion of the topic, ‘The concerns of Oral Health in a Changing Climate’ in the National Level Training Program on ‘Health in a Changing Climate: Empowering Health Professionals’, which was launched first in February 2023 by Indian Institute of Science, a first of its kind training program for healthcare professionals in India. Awareness about population oral health in a changing climate was covered in this training program and workshop by the Club’s faculty lead which is now a biannual program.
9. Research project: The faculty have an ongoing study titled “Perceptions about Climate Change, Sustainability and Health among students of Dentistry and its inclusion in dental curricula in Bengaluru, India: A mixed-methods study”.

What were the challenges?

One of the main obstacles during the course of running a student club is the lack of student motivation, interest and ownership of responsibilities by the students. Factors that contribute to this obstacle are:

• Lack of awareness about the topics of climate change, planetary health and sustainability.

• Capacity to see the significance of the role students have to contribute in this movement.

• Limited opportunities for eager students to implement creative solutions.

• Matching varying and demanding schedules between the students and inter-student communication

• Institutional limitations in regard to operations of the club.

What helped the intervention implementation/success?

1. To ensure that the student-club sustains, the founding team established a robust administration and structure that enables orderly operation and implementation of various activities. A board of student leadership selected by faculty aids in ensuring smooth running of the club. Annual batch-wise orientation sessions are conducted to induct new and interested volunteers to work towards the objectives of the club.
2. Highly motivated and dedicated faculty looking after the functioning of the club.
3. The support of the administrative wing of the Institute.

What were the results/Impact?

Patient outcomes:

Because of the awareness campaigns and planetary health lecture series the student and faculty are giving attention to patient's problems with a climate lense. Staff are able to understand the inequitable susceptibility of vulnerable populations to adverse oral health impacts.

Population outcomes:

The patient education pamphlets and posters on climate change and oral health and people's role in adapting and mitigating climate change created by the planetary health student club are bringing awareness among our patient community visiting our hospital. We are also showcasing posters and distributing these pamphlets to the common people visiting our outreach programs in villages around Bengaluru district.

Environmental impact:

The dental waste management workshop for the nursing staff and UG/PG students has greately increased adherence to sustainability guidelines and apprpriate disposal of dental waste using environmentally sound waste management protocols.

Social impact:

Despite the paucity of empirical evidence about the social impact, student behaviour and attitudes have significantly changed, particularly on college campus, as a result of the adoption of guidelines and awareness lectures.

One of the student members of the club shared her experiences as below: "I have been a part of Planetary Health Student Club since two years now. I personally have grown so much in the society. As a club it gave me valuable lessons on team work, communication skills and leadership. This amazing journey has helped me with many significant opportunities to increase my knowledge on planetary health and climate change vastly. Now that I know how being a dentist I can contribute to patient's health in this critical times of climate change makes me feel more confident and equipped".

What were the learning points?

The creation of the Planetary Health Student Club has highlighted the potential influence of young people in enacting structural change on campus. Students now have more responsibility and are able to think creatively and unconventionally to solve problems related to the environment.

Through the Dentistry pilot of the Planetary Health Report Card, the team explored the scope of expansion to accommodate planetary health and sustainability topics under the dental curriculum to improve student, patient and institution’s attitude towards the climate change movement.

Next steps

The club aims to tie up with local NGOs and nonprofits that are working in the planetary health realm. Patient education and advocacy regarding the environmental determinants of general and oral health is a future focus area to be explored. Potential plan to promoting dental school curricular inclusion of planetary health concepts is also in the pipeline. Faculty and members further aim to carry forth a formal review of the impact of the club under various parameters in order to improve the functionality.

Want to know more?

Contact name:Dr. Sushi Kadanakuppe

Role:Associate Professor, Department of Public Health Dentistry, Vokkaligara Sangha Dental College & Hospital

Contact details:sushikadanakuppe@gmail.com

Location & Region:Country: India; Bengaluru, Karnataka

Additional contact details:

* Dr. Suma N. K. (MDS, Associate Professor, Department of Pedodontics) sumank1412@gmail.com
* Mrs. Savitha (MSc in Dental Materials, Assistant Professor, Department of Prosthodontics) p.savitharao@gmail.com
* Dr. Monisha Chinthala (BDS) moni2chinthala@gmail.com
* Dr. Jahnavi M S janums2001@gmail.com
* Dr. Aamina Tasneem tasneemaamina2000@yahoo.com

Has this case study or story been made public in any form before?Yes

<https://phalliance.medium.com/the-planetary-health-student-club-d3c18b975a70>

Resources and Refereces

Dentistry Planetary Health Report Card (PHRC)

<https://phreportcard.org/dentistry/>

Planetary Health Student Club (PHSC) - Instagram Page <https://www.instagram.com/phsc_vsdch/>

Planetary Health Student Club (PHSC) - Website

<https://vsdentalcollege.edu.in/PHSC>

Sustainability Guidelines for College Events and Meetings

<https://docs.google.com/document/d/1IcnpdTIfxUOZs2_rASqEYVeNVN1jlPjpkY_uFYC_YdU/edit?usp=sharing>

Green Magazine: Edition 1

<https://drive.google.com/file/d/1V2MyQU-JYYZU9BvyAKbHp50g33JtN8Mo/view?usp=drive_link>

Green Magazine: Edition 2

<https://drive.google.com/file/d/1Z2gmwHZTDE00UOoSosZJsPfMhQt9dinb/view?usp=drive_link>

Hackley DM. Climate Change and Oral Health. Int Dent J. 2021 Jun;71(3):173-177. doi: 10.1111/idj.12628. Epub 2021 Jan 27. PMID: 34024327; PMCID: PMC9275305.