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Descriptive Best Practices

PEDAGOGY IN HEALTH PROMOTION

Pedagogy in Health Promotion: The Scholarship of Teaching and Learning
1–6

DOI: 10.1177/23733799251350608
journals.sagepub.com/home/php
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Leveraging Collaboration for Social Determinants of Health Pedagogy through Virtual Learning and Multidisciplinary Integration

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Abstract

This article presents innovative practices for teaching social determinants of health (SDH) in undergraduate education, using the themes of place, words, food, and craft as the foundation for trans-regional and multidisciplinary discussions. Based on this thematic model, we developed a course that brought together students from The Netherlands and Myanmar, as well as insights from the humanities, social sciences, and the life sciences, to examine SDH. Through a virtual exchange between students from The Netherlands and Myanmar, where a civil war disrupted education and devastated the health and well-being of people, students discussed topics that ranged from words describing menstruation in their mother tongue to their visions for a more just and equitable future. In these ways, democratic and deliberate spaces were provided for students to gain a multifaceted understanding of SDH. Most importantly, by providing education to those without access and cultivating trans-regional knowledge exchange, privileging local knowledge, as articulated by the students themselves, the curriculum embodied the very ideals the SDH framework strives for. The authors invite future SDH courses to explore virtual learning and multidisciplinary integration to expand the meaning of a university classroom.

Keywords

social determinants of health, curriculum design, virtual collaboration, multi-disciplinary, public health, decolonization

Introduction

The social determinants of health (SDH) are the non-medical conditions in life that shape outcomes of health and well-being (WHO, n.d.). Such conditions are determined by where people are born, grow up, work, live, and age, which are also affected by the cultural, political, economic, and social structures societies are built upon (Ratcliff, 2017; WHO, n.d.). SDH education offers valuable insights and skills for those working in health-related professions, for example as doctors, caregivers, and public health officers. Insights in SDH equip health professionals with advocacy skills, empathy, and the ability to track causal pathways of ill health (Brown et al., 2021; Chokshi, 2010; Hayman et al., 2020). More specifically, knowledge of SDH enables doctors to refer patients to community resources while also preparing caregivers and public health officers to work in multicultural societies (Bickerton et al., 2020; Brown et al., 2021; Bryant-Moore et al., 2018; Chang et al., 2017). Lastly, SDH promotes a Health in All Policies (HiAP) approach to policy making, which allows policy makers to consider the implications of all policies on health and well-being, in domains of housing, agriculture, and education, rather than only those that focus on the health sector (WHO, n.d.).

Common pedagogical practices in SDH education include storytelling and community service-learning. For example, forms of storytelling include role-playing of patient interviews for students to step into the shoes of patients and take medical as well as social history (Chokshi, 2010). In addition, storytelling assignments in the form of photo essays and multimedia creations

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encourage students to examine SDH while simultaneously raising awareness (Brown et al., 2021). Similarly, community service prompts students to examine SDH through volunteering in their own communities (Bickerton et al., 2020; Bryant-Moore et al., 2018). Existing education and practices focus on identifying SDH, without explicit emphasis on the underlying historical and political origins, while also neglecting the importance of self-reflexivity (Sharma et al., 2018; Tsai et al., 2021). As a result, students are poorly equipped with the knowledge and skills to actively challenge health inequity. To address this limitation, this paper presents an innovative curriculum for SDH education, one that is cognizant of the multiplicity of health circumstances in different parts of the world. Furthermore, the curriculum incorporates diverse frameworks and insights from the humanities, social sciences, and the life sciences to address SDH through trans-regional and multidisciplinary approaches.

Innovative Practices for Improving SDH Education

For SDH education to give students the full range of knowledge and skills needed to actively challenge health inequity, the following practices have been proposed.

Using Themes and Case Studies

A strategy for improving SDH education is to structure courses around sites of meaning-making from daily life and case-studies of geo-cultural-political circumstances as narrated by the target group themselves, rather than "risk" factors such as poverty, race, diet, and gender (Burke et al., 2022; Hunter & Thomson, 2019; Ramadurai et al., 2021; Song et al., 2018). This strategy trains students to not just identify risk factors but to examine the pathways and situational contexts that shape health and well-being (Hackett & Humayun, 2018; Sharma et al., 2018; Tsai et al., 2021). Additionally, the focus on themes that are significant to the students in their daily lives enables a comprehensive examination of how risk factors arise from historical conditions, social inequities, power structures, and resource inequalities (Tsai et al., 2021). In this way, students are made aware of deeper underlying causes and conditions of health inequities.

Introspection and Authentic Allyship

An increasingly important strategy for improving SDH and global health education is to promote introspection and allyship through group discussions, reflections, and community dialogs (Siegel et al., 2018; Tsai et al., 2021). Allyship in the context of global health education goes beyond progressive educational and social movement contexts, entailing a moral commitment to view health as a collective right rather than a personal phenomenon, as maintained through structures of privilege and the reproduction of health disparities (Chokshi, 2010; Siegel et al., 2018; Tsai et al., 2021). More importantly, reflexivity and allyship include being aware of the health inequities around oneself, including in high-income settings where global health education reside (Anand & Pai, 2023). Such awareness is crucial for the formation of authentic allyship, which transcends attitudes of charity and saviourism.

Holistic and Multidisciplinary Approach

An additional strategy to improve SDH education is to use diverse frameworks such as critical race theory (CRT) and eco-social approaches while also drawing on insights from different disciplines to reflect on power and pathways to health (Bann et al., 2022; Chokshi, 2010; Parkes et al., 2020; Tsai et al., 2021). Examining diverse frameworks allows for a deeper exploration of how risk-factors arise and interact (Tsai et al., 2021). Providing multidisciplinary perspectives also enables collaboration to address health inequities, such as between physicians and policy makers to ensure that social services are responsive to local contingencies and developed in collaboration with local health agents and actors (Bann et al., 2022; Chokshi, 2010; Tsai et al., 2021). In these ways, different approaches and knowledge can be utilized to tackle health inequities.

A Thematic Course That Incorporates Virtual Learning and Multidisciplinary Integration

This paper presents a curriculum developed for a first-year SDH course at Leiden University College (LUC) The Hague, the interdisciplinary Liberal Arts and Sciences institute at the Faculty of Governance and Global Affairs (FGGA) (Leiden University, The Netherlands), with a focus on contemporary global challenges. The course explored ways to implement strategies for locally embedding SDH education while remaining globally relevant, by integrating sites of meaning-making in everyday life to develop case studies, promoting introspection and allyship, and adopting a holistic, multidisciplinary approach. The course was designed and taught by Thrivikraman, the course instructor, while Lain, a current student at the Utrecht Graduate School of Life Sciences, introduced insights from the life sciences and helped redesign the course from the perspective of a former student.

Collaboration With Humanities Across Borders (HaB) of the International Institute of Asian Studies (IIAS), Leiden University

The idea that knowledge and learning have an organic connection with our socio-ecological environments, along with the idea of being together in the world, has been integral to the educational reconstruction work of the Humanities Across Borders (HaB) program. Participating in this experiment in building humanities-grounded, context sensitive learning methodologies, and collaborating as multi-university clusters from across the world, has provided us the substratum for a new approach to SDH.

The ongoing crisis of rationalism versus traditionalism, at the heart of the question of health and its social determinants, has been divisive in the sphere of education. Non-western beliefs, values, and vernacular systems of knowledge and healing are often considered a "private," "subjective," or "primitive" matter to be dealt with outside the classroom (Chen, 2010). Social life for the student in this context of learning is compartmentalized such that, in the words of Ivan Illich, "education becomes un-worldly and the world becomes non-educational" (Illich, 1971, p. 24). The pedagogical challenge is, on the one hand, to make sense of the everyday life experiences of the student, and on the other, to provide students the opportunity for meaning-making with classroom lessons that stimulate relatedness, recognition, and reflection. Drawing upon the civically grounded pedagogies developed at the International Institute of Asian Studies (IIAS), this SDH course utilized themes that reflect characteristics of many societies regardless of their geopolitics or economic positions. The idea was to offer a new approach or style of learning, one that uses the immediate environment that students and teachers can directly relate to, and fosters new ways of thinking about one's body, disease, and wellness, stimulating students to creatively identify the tools, both expert and cultural, available for maintaining good health for themselves.

The course content was shaped around four modules, each referring to a site of meaning-making, namely place, words, food, and craft, which have been well-honed under the HaB program (Kawlra & Peycam, 2023) This promoted introspection and allyship as students connected and related to each other. Furthermore, these formed the basis of weekly sessions. Within each of these, intersectional identities that encompass social factors such as race and gender could be explored, as well as multidisciplinary topics such as biosocial interactions. In this way, students were challenged to think and reflect holistically about SDH. The four sites of meaning-making are further described here:

1. **Spaces & Places**. focus on flora, fauna, monuments, buildings, neighboring localities, including those where students reside, the built environment, and landscapes, which are good ways to make students conscious of their surroundings.
2. **Words.** How we use words reflects how we communicate, but can also create confusion or misuse. Teachers and students can jointly participate in unraveling the multiple contexts of use/misuse/not-in-use of different words in any language and understand for themselves the power play underlying the meanings attributed to words chosen to explore.
3. **Food.** Food is essential to all cultures and invites dialog on local and global food systems (production, distribution, and consumption).
4. **Craft.** Focus on creativity and curiosity as well as skills that connect to their everyday life.

Virtual International Collaboration (VIS)

In addition to the collaboration with HaB, the course introduced a virtual international collaboration (VIS: Virtuele Internationale Samenwerkingsproject) element in which the class was delivered to both students in the Netherlands and Myanmar. Through this initiative, discussions and collaborative assignments prompted students to explore ways in which SDH and the four sites of meaning-making manifested globally, and understand what allyship means in different contexts. For example, students in the Netherlands gained awareness of the situation in Myanmar and thought about education in non-traditional spaces, while students in Myanmar engaged in academic discussions and shared their stories. The VIS element was enabled by a grant from the Dutch Ministry of Education, Culture and Science which aimed to create virtual spaces where students in the Netherlands could collaborate to learn and exchange ideas. The VIS grant provided training and advice to further develop these courses. Thrivikraman, the course instructor, took part in one such training, which enabled the course to be developed for a hybrid format.

The eventual format of the VIS course started during a HaB meeting in Senegal. In Senegal, Thrivikraman, and Than began discussing the situation in Myanmar. Than spoke about the displacement of many young people due to the military coup, COVID-19 and the civil war. Many of these people were actively seeking forms of education outside the military-run systems. Than co-founded Virtual Federal University (VFU), which offers courses for those students who are part of the Civil Disobedience Movement (CDM) in Myanmar, with the ability to join courses virtually and receive certification of completion. Thrivikraman was looking to redevelop her SDH course to address the challenges outlined above. The collaboration between LUC and VFU, along with support from the VIS grant, enabled a redesign. In the first iteration of

the course, 15 students from Myanmar participated with support from two local faculty who managed the student interface for VFU students and helped translate content.

Throughout the 8 weeks of the course, with 7 weeks of teaching and 1 week for final projects or exams, students had a combination of lectures and group work activities. The first session was used for an interactive lecture, with small group discussions and prompts embedded, as well as time for groups to come together and share with the class. A second session was used for extensive group work between LUC and VFU students, such as on tasks outlined in the assignments section, which prompted further conversations on how each topic and SDH manifested locally. This trained students to listen and understand each other's perspectives, thus building mutual allyship and understanding, both among students locally and also between The Netherlands and Myanmar. Each of these sessions was 1 hr and 45 min and supported by the team of instructors, with time allocated for students to debrief and process their experiences with instructors as half of the class was in the midst of a military conflict.

The inclusion of teachers who were familiar with the situation in Myanmar was essential for protecting the VFU students, who were given pseudonyms and the choice to participate with their cameras off. Prior to every class session, VFU instructors also met with students to review materials in Burmese and prepared students for discussions, which was key for ensuring equitable participation. The instructors further made space and time for VFU students to make comments in the meeting chat. It was through the constant seeking of feedback that instructors realized the need for local instructors to present more case studies from Myanmar, which made discussions more accessible and locally grounded.

Promoting Diversity in Frameworks and Insights

The VIS element of the course allowed for diverse insights to be produced and explored in the classroom. For example, VFU students shared how social media and proximity to schools led to the increased consumption of fast food as Western franchises entered Myanmar during its economic liberalization in 2013. Students in The Hague on the other hand shared insights on how food options differed based on the cultural and economic compositions of neighborhoods. On the topic of words, students in Myanmar highlighted difficulties in promoting reproductive health given the country's linguistic diversity, with varying terms reflecting diverse views on pregnancy and birth. Similarly, international students in The Netherlands shared stories of accessing healthcare information when moving to a foreign country during the COVID-19 pandemic. Through such conversations, the course allowed students to understand how SDH manifests locally.

The course further incorporated frameworks that adopt a different approach to SDH than the conceptual SDH (CSDH) framework by the World Health Organization (WHO), which emphasizes the ways in which cultural, political, economic, and social structures shape health and wellbeing (Solar & Irwin, 2010). Other frameworks included the indigenous determinants of health model and the eco-social model (Krieger, 1999, 2021; Parkes et al., 2020; Reading et al., 2007). The indigenous determinants of health model emphasizes the role of communities while the eco-social model focuses on the different levels of ecological and social structures, as well as ways these structures are embodied in the lives of people (Krieger, 1999, 2021; Reading et al., 2007). By incorporating diverse frameworks, students could reflect on SDH in different ways and adopt a comparative approach when examining case-studies, including examples from their own lives (Bryant-Moore et al., 2018).

Besides introducing diverse analytical frameworks, the course also integrated insights from the humanities, social science, and the life sciences to examine recurring themes of the course. For example, the introductory lectures of the course introduced and allocated time for students to explore life science studies on topics such as prenatal stress and the importance of childhood play in physical, social, and emotional development, while a later text included a quantitative social science study on maternal stress and preterm births during the COVID-19 pandemic. The topic of pandemics was then followed up by anthropological studies, such as on the Ebola crisis in Sierra Leone. In this way, discussions on SDH topics deepened as the course progressed. The multidisciplinary approach also ensured that all students could find topics of their interest and gain useful insights for future endeavors, whether it is work in the medical, policy, or the research field.

Course Organization and Assignments

The 8-week course consisted of 6 weeks for course content and 2 weeks for assignments. The first week focused on introducing SDH frameworks while the second to fifth week each focused on one of the four themes of place, words, food, and craft. A sixth week was dedicated to conclusions and policies. The assignments included a weekly reflection portfolio that spanned the entire course. For the last 2 weeks, students were required to produce a group research report. The report required students to conduct a literature review to justify a research

question, collect data by interviewing each other, analyze data thematically, and conclude with discussions. A complete description of the learning objectives, weekly modules, and assignments can be found in the Supplemental Materials. Specific course materials are provided upon request.

Evaluation of Practice

All 20 students evaluated the course through a standard university-wide course evaluation form. Students rated the SDH course an overall nine out of 10, which showed that the course promoted critical thinking and was well-organized. The qualitative feedback highlighted the value of mutual learning between locations. Students also felt that the topics enabled complex concepts to be made clear and relatable.

Conclusion

The security situation in Myanmar posed its challenges throughout the course. One student fully attended the course from a resistance camp in the forest. A VFU instructor had to flee the country during the course because the junta (*military government*) decided that all young people would be recruited to fight. The students and instructors in Myanmar used pseudonyms lest their identities were discovered. We had to be careful in ways that many of the LUC students thankfully had never experienced. However, the focus was not merely on challenges but on finding connections. Laughter and learning accompanied this exchange as students shared details about their favorite fast foods in their respective locations, words for menstruation, experiences with gambling, and even about opium cultivation. As a student wrote in the course evaluation, "I think that one of the most valuable lessons that I have learned so far during this course is that different problems require other and more multifaceted ways of thinking, ways that I haven't even been able to think about."

For LUC students who are wanting to address global challenges, they were able to understand the complexity behind these ideals. For VFU students, this was the first time many of them heard about SDH concepts. Both groups were heavily influenced by the notion that achieving health and well-being may require more upstream political and economic changes. SDH is about having democratic and deliberative spaces where place in society does not limit one's path. The idea of offering classes to those who were not able to access it is the embodiment of the SDH framework and as Than said "education as resistance." We encourage other SDH courses to adopt our thematic approach along with a virtual collaborative approach to exchange on these topics and to expand the meaning of a university classroom.

Acknowledgments

We extend our gratitude to the students from LUC and VFU who took part in this exchange. Their openness, both in mind and heart, to learning from one another and sharing experiences contributed greatly to the success of this course.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This study was part of the virtual international collaboration (virtuele internationale samenwerkingsprojecten) grant by the Dutch Ministry of Education, Culture and Science (Ministerie van Onderwijs, Cultuur en Wetenschap).

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Supplemental Material

Supplemental material for this article is available online at https://journals.sagepub.com/home/php.

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