Strengthening community-campus partnerships to address planetary health challenges: Reflections from emerging leaders

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ABSTRACT

Universities do not adequately prepare learners to tackle planetary health challenges, including the intersecting crises of wealth inequality, racism, and climate change. Community-engaged education represents an opportunity to strengthen the critical consciousness of students and their sense of civic and planetary responsibility. In this chapter, the authors draw upon their learning experiences at McMaster University and beyond to develop a set of evidence-informed suggestions to embed planetary health-promoting, community-engaged learning opportunities in higher education institutions.

KEYWORDS

planetary health, community-engaged education, community-campus partnerships, critical service learning, sustainability

Planetary health is defined as "the health of human civilization and the state of the natural systems on which it depends" (Whitmee et al., 2015). Planetary health recognizes the interconnectedness of inequities in health, wealth, and access to a healthy environment and offers a promising avenue to advance synergistic solutions. As medical and planetary health learners, we believe that combating the societal inequities taught in our higher education curricula requires looking beyond textbooks, academic papers, and the healthcare system—and into our communities.

Climate change is a planetary health crisis that has been described as the greatest global health threat of the 21st century (Watts et al., 2018). Changes in global weather patterns, air pollution, freshwater depletion, rising levels of environmental toxins, habitat destruction, and biodiversity loss have been associated with a wide spectrum of downstream mental and physical health impacts on current and future populations (Anderegg et al., 2021; Cunsolo & Ellis, 2018; Vicedo-Cabrera et al., 2021). It is clear that human health is dependent on the well-being of our planet.

In addition, climate change is both a product and an exacerbator of the societal crises of wealth inequality and racism. A growing body of literature has established that capitalism and colonialism are drivers of climate change, due to their endorsement of extractive industries

(Vogel et al., 2021) and their erasure of traditional knowledge systems that have lived harmoniously with the land for time immemorial. The health impacts of climate change are also not experienced equitably, disproportionately affecting racialized populations and those who have been structurally marginalized. For example, polluting infrastructure such as landfills and industrial waste sites are spatially distributed in proximity to Black and Indigenous communities in Nova Scotia (Waldron, 2018). In addition, the mental health impacts of climate change and habitat destruction disproportionately impact Indigenous people due to their deep connections with the land (Middleton et al., 2020). Finally, people of colour are more likely to be exposed to urban heat-islands (Hsu et al., 2021), a phenomenon whereby the urban-built infrastructure increases heat production, absorption, and retention.

For millennia, Black, Indigenous, and people of color (BIPOC) have resisted these oppressive colonial systems, defending their rights and protecting their lands (Deyhle, 2008; Forbes, 1990; Gilio-Whitaker, 2019). By means of their resistance and fight for self-determination, they have led environmental preservation efforts that promote biodiversity and the health of all communities (Schuster et al., 2019). Despite this, in our classrooms and in the literature, equity-deserving communities are often framed in terms of the oppressions they have endured, which perpetuates a stigmatizing and potentially disempowering deficit narrative (Hess et al., 2007; Morgan & Ziglio, 2007). Opportunities for students to connect with community members would address this deficit narrative by promoting student capacity to navigate the dimensions of privilege and oppression and learn from the immense strengths of these communities. Building lasting relationships with communities deepens empathy for the diversity of the human experience and how it is influenced by societal and ecological factors. This connection helps students develop critical consciousness and a sense of responsibility to their local and global communities. In addition, while working toward meaningful change in their community, students come to appreciate the influence of grassroots, community-led movements on global systems. These learnings are fundamental to preparing future leaders to address planetary health challenges. Through the lens of our experiences co-creating with local communities and advocating for planetary health as learners, we aim to demonstrate the importance of community-campus partnerships in higher education and provide guidance to educators on how to expand their community-engaged curricula to advance planetary health.

CONNECTING THE DOTS: RECOGNIZING THE IMPORTANCE OF COMMUNITY-ENGAGED LEARNING TO ADVANCE PLANETARY HEALTH FROM OUR STUDENT EXPERIENCES AT MCMASTER UNIVERSITY

Community-engaged education is a form of experiential-based learning that recognizes our communities as critical to pedagogy (Preston et al., 2019). Community-engaged education and planetary health education meaningfully complement and reinforce each other, as they share several underlying principles and elements. During our time as undergraduate students in the Bachelor of Health Sciences (BHSc) program at McMaster University between the years of 2015–2019 on the traditional lands of the Haudenosaunee and Anishnaabeg peoples, we were introduced to the importance of critical consciousness in community engagement to advance planetary health.

I (Yina Shan) entered the global health specialization after my first year in the BHSc program. The specialization approached health with a social sciences lens; this piqued my interest, as my prior academic background had heavily focused on the physical sciences. The next 3 years challenged and broadened my understanding of health at the individual and population levels. Through an introductory discussion-based course exploring the complexity of disease states, my peers and I learned about sociopolitical determinants of health and applied our learning through simulated World Health Organization meetings on emerging global health issues. In my third year, I worked with peers on a community-based project supporting the United Nations Special Rapporteur on Toxics and Human Rights with an investigation of the health, social, and environmental implications of open landfills in Freetown, Sierra Leone. We connected and collaborated with environmental organizations and researchers working in Freetown and listened to their first-hand experiences. This project began to shape my understanding of environmental justice and health equity as inextricably connected and fostered a strong sense of responsibility to learn more and meaningfully contribute to solutions that improve the well-being of affected communities. These experiences highlight a key commonality between community-engaged education and planetary health education: the promotion of social awareness and responsibility. Community-engaged education connects students with contemporary issues and encourages them to explore causes and solutions. Through this process, students may develop a notion of responsibility to local communities and a commitment to be agents of social change. In parallel, several principles in planetary health education, including inequity and global citizenship, are contingent upon an awareness of and commitment to social change (Stone et al., 2018). The principle of inequity implores learners to critically consider how climate change disproportionately impacts the health of different populations due to systems of marginalization and oppression. The principle of global citizenship emphasizes the recognition of oneself as part of broader communities in which one can effect change.

While academically-oriented opportunities planted certain seeds, I came to recognize that engaging beyond academia, with local and global community-led movements, is pivotal to learning about the realities lived by communities and contributing to tangible change. As I approached the end of my degree at McMaster, I began seeking opportunities to learn from community activists, including Indigenous healers through the McMaster Indigenous Health Conference, organizers leading the Decent Work and Health Network and Justice for Workers campaign (previously known as the Fight for $15 and Fairness campaign), and environmental advocates leading Environment Hamilton projects. In these experiences, I learned that the practice of organizing and movement building is integral to community-engaged education and planetary health education. Through community engagement, learners gain an appreciation for the "bottom-up" approach to political and social change, which is centered on grassroots movements as well as community leadership, decision-making, and mobilization. This approach, which has been exemplified by ecological justice movements led by BIPOC locally and globally, supports the development and implementation of creative, impactful, and long-term solutions to planetary health challenges. For example, Indigenous Climate Action is a coalition of Indigenous knowledge keepers, water protectors, and land defenders from across the

country who collectively work to connect, support, and inspire communities to drive impactful climate solutions that centre Indigenous peoples' rights and knowledge systems (Indigenous Climate Action, 2021).

Like Yina, following my first year of the BHSc program, I (Owen Dan Luo) specialized in child health. The community-rootedness of the child health specialization made it possible for third-year students to take part in an experiential service-learning placement with one of our program's community partners; I was very fortunate to have been placed with Woodview Mental Health and Autism Services in Hamilton, Ontario and to have facilitated social skills groups for children with autism spectrum disorders. Through reviewing the literature, I learned that many evaluation scales that assess treatment progress and outcomes in autism spectrum disorders measure outcomes that are not valued by the family unit (McConachie et al., 2018). I then reflected on whose voices are heard, celebrated, or valued and whose are silenced, muffled, or ignored in academia, and the importance of centering community partnerships on the experiences of those who are most impacted. These reflections motivated me to pursue iterative rounds of feedback from the children, their families, and the skilled therapists I worked with to develop and implement a set of age-appropriate visual supports to improve sportsmanship attitudes and behaviours. Engaging with the community helped me recognize the importance of co-creation and developing ethical partnerships with community groups that emphasize power *with* rather than power *over* (Labonte, 1994). This approach is critical to dismantling long-standing power structures in academia, which minimize the voices and knowledge of BIPOC communities who are most affected by planetary health issues (Redvers, 2021). For example, the legacy of colonialism maintains structures that bar Indigenous peoples from accessing spaces, roles, and power necessary to steer decision-making, despite the fact that their knowledge systems and skills are vital to restoring harmonious relationships with one another and with the land (Redvers, Schultz, et al., 2020). Meaningful progress on planetary health action is contingent on amplifying and centering the stories of BIPOC community members. Stories are powerful vehicles through which we can become more attuned and empathetic to the lived experiences and histories of local and global communities. Community-engaged planetary health education can facilitate story-telling and story-listening, particularly as they relate to the human experience in connection with others, the Earth, and all of the living and nonliving systems that we depend on.

With the guidance of thoughtful facilitators, I was exposed early on in my education to how the social inequities between and within our communities influence the developmental trajectories and health of children and their families. In my senior years of the program, I was placed into groups with my peers and tasked to grapple with complex, systems-level challenges in child health in order to envision solutions that leaned into intersectoral collaborations to advance health and social equity for children and youth. These academic exercises culminated in opportunities to present our proposals to an interdisciplinary panel of researchers, advocates, community leaders, and governmental decision-makers. These experiences taught me the importance of systems thinking and interdisciplinary collaboration to advance planetary health. In order to implement meaningful climate change adaptation and mitigation measures, de-siloing sectors is critical; for example, mitigating urban heat islands and building sustainable,

climate-resilient cities requires collaboration between the energy, housing, industry, transport, waste, water and sanitation, and urban design sectors (Degirmenci et al., 2021). Students need to be familiar with systems thinking, as planetary health challenges are multi-dimensional and require stakeholder engagement across disciplines and sectors to develop and scale holistic, long-lasting solutions.

Our experiences as students at McMaster University have shown us that textbook and conventional classroom learning has limits, as the experiences, stories, and knowledge of affected communities are often erased and misrepresented in academic settings. In view of persistent and growing planetary health crises, bridging the community-classroom gap has become ever more critical to equip learners with an understanding of multifaceted issues and with the necessary tools to effect change in our communities.

PRACTICAL SUGGESTIONS FOR EMBEDDING PLANETARY HEALTH AND COMMUNITY-ENGAGED LEARNING INTO HIGHER EDUCATION INSTITUTIONS

The intersecting crises of wealth inequality, racism, and climate change provide substantial impetus for teaching planetary health concepts and providing community-engaged experiential learning opportunities for students in higher education. Based on our experiences and the best available literature, we provide these four suggestions to facilitate their meaningful and sustainable integration into higher education.

1) Build a roster of community organizations in the region that have capacity to supervise students

In order to facilitate community-engaged learning experiences for students, it is important to identify active community organizations that are located in the vicinity of the campus and that have the interest and capacity to host students. This can occur via informal relationship-building through the institution's community engagement office or the distribution of community partner recruitment forms (Foco et al., 2013). Recruitment should also be targeted toward community organizations that work with BIPOC, as well as those that are working on environmental sustainability projects and climate change adaptation and mitigation solutions. In order to promote sustainable university-community organization relationships, higher education institutions should remunerate community groups for hosting, supervising, and providing students with valuable learning opportunities. In addition, the expertise and lived experiences of community leaders and members should be valued and integrated into curricula; this can be achieved by inviting community members to participate as instructors supported by academic faculty, as invited guest speakers, and as invited co-authors on any scholarly material informed by their engagement.

2) Conduct community-campus exchanges to identify community priorities and co-create social change

An online survey of community partners of academic institutions identified that aligning student learning goals to the community organization's resources and needs was often cited as a challenge (Karasik, 2020). One promising solution is to host a community-campus exchange,

which invites community, faculty, and student groups to define the current priorities of local community groups, discuss change opportunities, and form and strengthen community-campus partnerships (CHASM Leadership, 2019). These events are in keeping with the ongoing efforts to decolonize higher education institutions (Louie et al., 2017) by deconstructing the power imbalances between community organizations and academic institutions. This community-campus exchange would also be an opportunity to invite Indigenous-led community organizations to share their traditional knowledge and worldviews. Indigenous voices have historically been silenced and minimized in Canada and in Canadian higher education, even though their ways of being that emphasize the interdependence of all living and nonliving things and their long-standing efforts to defend the land from exploitation and extraction have immense potential to advance planetary health (Redvers, Poelina, et al., 2020). Indigenous voices are crucial to co-develop meaningful land-based experiential learning opportunities that teach post-secondary students about Indigenous knowledge systems as they are typically practiced and transmitted on the land (Bartmes & Shukla, 2020), and also to promote environmentally conscious behaviours by fostering student connections with nature and recognition of the intrinsic value and life of the land and water (Mackay & Schmitt, 2019). The Uncover Common Ground program that brought together Indigenous and settler youth to engage in land-based sustainability projects guided by Indigenous elders and communities represents an effective model of intercultural relationship-building to tackle planetary health challenges (The Jane Goodall Institute of Canada, 2020). If done iteratively and purposefully, these exchanges will inform learning experiences that mutually benefit the students, community, and planet.

3) Implement pre-departure and longitudinal training for students to learn about ethical community partnership practices and critical service learning

Another challenge identified in the online survey of community partners was inadequate preparation of students for community engagement and service activities (Karasik, 2020). Areas of improvement included knowledge and skills (e.g., understanding of topic area, organizational mission and populations served, cultural awareness), professionalism (e.g., reliability, respecting staff time), reciprocity (i.e., understanding the experience is mutually beneficial), and initiative (e.g., asking questions). Educators have cautioned that community-engaged learning can be a double-edged sword; although it can help students with their personal and professional growth into more conscientious and civic-minded individuals, poorly developed programs may in fact produce harm by reinforcing stereotypes or power imbalances (Latta et al., 2018). Potential ethical issues include positioning community members using a deficit orientation, exploiting them for educational gain, and associating service with academic credits, all of which maintain the systemic inequities community-engaged learning theoretically aims to disrupt. Critical service-learning addresses these ethical issues by explicitly disrupting power differentials, working toward social change, and developing authentic relationships in the classroom and community (Mitchell, 2008). This approach asks students and faculty to interrogate their own positionality, such as the power, privilege, and values they hold, and reflect on how they may act on it in the context of their community engagement.

Students should engage in training prior to and throughout their placement, which may encompass a range of topics depending on the community's and student's needs. We believe that educating students on how to form ethical relationships and co-create with community groups through the lens of critical service learning should be central to any community-engaged endeavour. Students should also be encouraged to complete needs assessments of their community organizations, which characterize the gaps between current and desired conditions in a community and examine potential causes (Stevens & Gillam, 1998) in order to guide their community-engaged learning experience. Furthermore, as learners, we noticed a gap in our classroom teaching and academia at large, in which the predominant focus was on cultivating disciplinary expertise rather than an ability to work across disciplines and sectors and examine interconnections. Thus, community-engaged learning opportunities should provide guidance on the principles of planetary health education, including systems thinking (Guzmán et al., 2021; Pongsiri et al., 2017) and Indigenous traditional knowledge systems (Redvers, Poelina, et al., 2020).

4) Focus on action, advocacy, and long-lasting impact on communities and the planet
Community-engaged and critical service learning has the potential to transform generations into leaders committed to social and environmental justice (Luo et al., 2021; Nguyen et al., 2021). It also carries an ethical obligation to positively contribute to the communities that students have the privilege of working with and learning from. Community-engaged learning should be structured and implemented in such a way to facilitate long-lasting, meaningful social and environmental change in communities. In particular, planetary health solutions require longitudinal commitment because the necessary changes to the unjust systems that underpin and drive these issues, including colonialism and capitalism, often happen slowly (Marya & Patel, 2021). Universities should prepare learners to recognize that the systemic changes they wish to see and enact require long-term vision, persistence, and (un)learning, coupled with immediate, targeted actions.

Reflecting on our own curricular experiences, the academic term and year may be just enough time to begin a project, while providing opportunities for longitudinal engagement over the course of a student's academic trajectory may enable them to thoughtfully develop projects from beginning to end while strengthening their relationships with community groups. An alternative approach to address student turnover would be to co-design extended learning opportunities with community groups that can be handed over and inherited by many generations of students. Moreover, universities should adopt a flexible approach to student assessment that considers not only quantifiable deliverables but also qualitative markers such as reflection and reflexivity, personal and professional growth, long-term vision, and community and environmental impact or potential for impact. To support these approaches, mutually beneficial goals should be co-developed based on the needs and values of community partners and the capacity of students and the university.

CONCLUSION

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Higher education institutions can strengthen their leadership in problem-based and impact-focused education by embedding planetary health and community-engaged learning curricula into all undergraduate and graduate programs. In doing so, they will ensure that students across all disciplines are prepared to collaboratively promote global health and the health of all the natural systems upon which it depends. We have an opportunity to chart a path towards a more equitable, regenerative, and healthy future, and we cannot let this chance pass us by.

NOTE ON CONTRIBUTORS

Owen Dan Luo *is a second-generation immigrant and humble and grateful guest of the land on Turtle Island. Owen is a medical student at McGill University and a McMaster University BHSc (Hon.) graduate who believes in the power of student empowerment to address planetary health challenges that lie at the intersection of healthcare and education. Owen mobilizes healthcare trainees to advance low-carbon, climate-resilient healthcare and to address longstanding health inequities through community-based co-creation across Canada. Owen was named a 2019 3M National Student Fellow, awarded with McMaster University's Chancellor's Gold Medal and President's Award of Excellence in Student Leadership, and spoke as valedictorian at the 2019 McMaster Faculty of Health Sciences Convocation.*

Yina Shan *is a first-generation immigrant, part of the Chinese diaspora, and a grateful guest on Turtle Island. She is currently studying medicine at the University of Toronto and holds a Master of Public Health in epidemiology from the University of Toronto and a Bachelor of Health Sciences from McMaster University. Yina is driven by a passion for planetary health, environmental and social justice, and health equity, and she strives to ground her learning and practice in decolonization and community engagement. Her interests have led her to undertake advocacy, education, and research projects on planetary health, urban heat, WASH (water, sanitation, and hygiene), waste management, university responsibility in sustainability, and green space. She is a past recipient of the SSHRC Canada Graduate Scholarship, Ontario Graduate Scholarship, and the Albert Lager Prize for Student Initiative.*

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