system. However, the HL system reported higher ratings for haptic feedback. Results also show that task performance for ETI was better in the HL system compared to VR and mannequin-based systems. We present our initial results to substantiate an open challenge to all fields of medicine to consider applications of home-use multiplayer HL as an option to facilitate safe, cost-effective, learner-centered medical education in 2030.

Margaret E. Roderick, BS

Medical Student, School of Medicine, University of Missouri-Columbia

Noah J. Timko, BS, BHS

Research Specialist, Department of Anesthesiology and Perioperative Medicine, University of Missouri-Columbia

Bimal Balakrishnan, PhD

Associate Professor of Architectural Studies, Department Chair, and Director of Graduate Studies, Department of Architectural Studies, University of Missouri-Columbia

Julie M. Marshall, MD

Associate Professor of Anesthesiology, Department Vice Chair, Department of Anesthesiology and Perioperative Medicine, University of Missouri-Columbia

Corresponding author: Julie M. Marshall, MD, University Hospital, Room CEC508, DC005.00, One Hospital Drive, Columbia, MO 65212, 573.882.2568, marshalljm@health.missouri.edu



A Department Wellness Initiative for Coping With Climate Distress in 2030

Setting and Problem

Climate grief is a well-documented phenomenon, and as we embark on academic year 2030, we note that it

DOI: http://dx.doi.org/10.4300/JGME-D-19-00816.1

has been an increasing contributor to resident burnout. Efforts on resident wellness in the 2020s focused on traditional concerns such as work-life balance and salary/vacation with trainee unions. Few have been prepared for the impact that the ongoing climate crisis has had on our medical trainees. Given certain social and political unrest in the coming decades, developing a cadre of highly resilient, creative, and solution-oriented women's health providers is more important than ever.

At the University of Washington (UW), rising sea levels and climate refugees from the drought-ridden Southwest and California have resulted in affordable housing shortages for our trainees. Threats to lowlying neighborhoods have led to an increase in residents living in questionably legal "floating dormitories" along Lake Washington. Forest fires in British Columbia and Oregon have led to worsening air quality in the picturesque Pacific Northwest. Regional warming and less cloud cover have resulted in sunnier days but threaten the rainforests on the peninsula. There is tension between medical students, trainees, and faculty about individual climate footprints, arguments about food waste and recycling at the end of grand rounds, and public shaming on who drove to work that day. The gynecologic oncology rotation has been particularly distressing for residents given the shortages in intravenous (IV) narcotics due to another hurricane in Houston, a key production region for IV medications. The VRE epidural crisis has been disruptive to clinical services on labor and delivery, affecting patient and provider morale.

Intervention

A concentrated effort was enacted within our department to combat climate grief and allow us to continue our mission of improving women's health in our region and globally. A faculty member and chief resident are appointed annually to be "Climate Lead." In academic year (AY) 2030, our climate leads initiated small meaningful steps focused on achievable goals to help the department and our greater academic community deal with paralysis and fear. Each Wednesday, we recite a modified, secular Serenity Prayer during morbidity and mortality conferences to remind ourselves that acceptance is key and we cannot change everything. Given the existential threat, our department chair approved protected academic time (0.1 FTE) to interested faculty and residents for climate advocacy and community outreach. Our traditional department "Ski Day" has been transformed into an annual department hike to the backcountry, given the reduction in snowpack. Resident call room light therapy lamps and Vitamin D bottles have been replaced with sunscreen and N95 masks for bike commuters.

Outcomes to Date

In AY 2030, an operating room walkout led by our gynecologic oncology division finally resulted in new purchasing decisions for compostable laparotomy sponges and reduction in single use medical waste. Due to a resident-led initiative on social media to decrease greenhouse gas emission from meat production, the UW cafeteria is phasing out animal products, moving toward a locally sourced plant-based menu. Intensive training in mindfulness techniques led by the UW graduate medical education department, and structured interdisciplinary didactics with family medicine and psychiatry departments, have greatly increased resident comfort with outpatient management of post-traumatic stress disorder in displaced persons. Our fleet of mobile abortion vans (which are ostensibly parked across the border in Canada) are now solar powered. The university offers a monthly Climate Book Club, and each Wednesday at 7 pm, a social worker is available for residents to engage in guided group therapy to support their well-being amidst great change. Our Maslach Burnout Inventory score within the department has decreased from 74% to 67% in one academic year, and we anticipate further improvements in the year to come.

Mallory Kremer, MD

Assistant Professor, Assistant Residency Program Director, University of Washington

Seine Chiang, MD

Professor, Residency Program Director, University of Washington

Corresponding author: Mallory Kremer, MD, University of Washington, 1959 NE Pacific Street, Box 356460, Seattle, WA 98195-6460, mkremer@uw.edu