

Thursday, October 21, 2021

Session 4: Playing the Field

Moderator: Tim Mickleborough

Time Limit: 10-min presentation followed by 5-min Q&A

Time	Pod #	Title	Authors	Presenter
1:00-1:15	4.1	Health Professions Education: Maintaining Relevance Within a Changing Landscape	Robert Paul, Carrie Cartmill, Mitch Irving, Tim Tripp, Melanie Anderson, Theresa Kay	c.cartmill@utoronto.ca ; robert.paul@mail.utoronto.ca
1:15-1:30	4.2	Simulation-Based Power Analysis for Bayesian Estimation: A Novel Approach for Prospective Power Analyses in Health Professions Education Research	Adam Gavarkovs, Ryan Brydges, Jeff Cruckley	adam.gavarkovs@mail.utoronto.ca
1:30-1:45	4.3	Exploring International Faculty Development Collaborations	Lindsay Baker, Emilia Kangasjarvi, Michelle Kassis, Maria Mylopoulos, Karen Leslie	karen.leslie@sickkids.ca Lindsay.baker@unityhealth.to
1:45-2:00	4.4	What We Really Mean by Equity, Diversity, and Inclusion in Postgraduate Medical Education: A Critical Narrative Review	Justin Lam, Michal Coret, Carlos Khalid ¹ , Kat Butler, Ryan Giroux, Maria Athina (Tina) Martimianakis	justin.lam@sickkids.ca
2:00-2:15	4.5	Clinician Scholar Program for Psychiatry Residents: What We Learned from the Literature and Similar Programs in North America	Certina Ho, Yifan Zhou, Kei Cheng (Christy) Mak, Kathleen Sheehan, Sanjeev Sockalingam	Certina.Ho@ismpcanada.ca



PODIUM 4.1 -- 1:00-1:15 [10 min presentation followed by 5 min Q&A]

Health Professions Education: Maintaining relevance within a changing landscape

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COVID-19 has disrupted health professions education (HPE) in Canada, leading to the removal of trainees from clinical learning environments and a shift to virtual learning. We turned to the global literature to identify how HPE had been disrupted more broadly, and how education settings were adapting. We were aware of the abundance of publications that described virtual adaptations, and specifically wanted to identify other responses to COVID-19, along with the logics and rationales that underpinned these adaptations. We conducted an in-depth review of literature identified in Medline using a newly constructed HPE search filter. Our analysis was informed by Foucauldian critical discourse analysis, and we paid attention to how power was shifting within HPE and what new identities and activities this was producing. We identified four shifts across four levels of analysis, all grounded in the struggle to maintain relevance: first, at the *professions* level, relevance was maintained by identifying new emergent roles and responsibilities that encroached upon professional boundaries; second, at the *specialties level*, relevance was tied to revising expected skills, experiences and competencies; third, at the *educational* institutions level, relevance was heightened by emphasizing both the need for, and the potential limitations of, standardized and globally relevant pedagogy and curricula; and fourth, at the *health sciences centres* level, power relations between hospitals and universities were challenged by the necessity of ensuring a stable and resilient workforce. Understanding how stakeholders within HPE are attempting to maintain relevance during COVID-19 provides insight into how the landscape of HPE may change in the future.

PODIUM 4.2 -- 1:15-1:30 [10 min presentation followed by 5 min Q&A]

Simulation-based power analysis for Bayesian estimation: A novel approach for prospective power analyses in health professions education research

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Background: Few studies in health professions education research (HPER) report a prospective power analysis. To promote greater use of power analyses for studies involving Bayesian estimation, we present a data-driven, simulation-based approach that is flexible to multiple study goals.

Methods: Performing a prospective power analysis for Bayesian estimation involves five steps. First, one must define the study goals, which might involve evaluating the posterior distribution relative to a specific parameter value (e.g., the null value) or obtaining a precise estimate of the posterior distribution. Second, one must define a hypothetical distribution of parameter values in the population being sampled, based on available data. Third, one must sample a set of parameter values from the hypothetical distribution and use these values to generate a random sample of data with a given sample size. This step is simulated many times, resulting in many datasets that represent what could be observed in an actual study. Fourth, one must fit a Bayesian regression model to each simulated dataset. And fifth, one must determine whether the study goals have been attained for each dataset. Estimated power is defined as the percentage of simulations where the study goals have been attained. Determining an appropriate sample size requires locating the minimum sample size where estimated power is above a desired level.

Results: We present the results of a power analysis to illustrate this approach.

Discussion: Greater use of prospective power analyses in HPER will enhance the quality of scholarship by optimizing the probability of study goal attainment.

PODIUM 4.3 -- 1:30-1:45 [10 min presentation followed by 5 min Q&A]

Exploring international faculty development collaborations

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Established faculty developers are increasingly engaged in international capacity building, however there is limited literature to guide this work. The Faculty Developer Competency Model (FDCM) derived from ethnographic study of faculty developer practices might provide a helpful frame for understanding and informing these international collaborations (Baker et al. 2018). It highlights how faculty developers engage in three key processes while integrating their knowledge, skills, and identity with their context.

Methods: Utilizing the FDCM as our analytical framework, semi-structured interviews were conducted with faculty developers involved in several international collaborations (from Canada, Singapore, Brazil, Australia, Ethiopia and the US). Participants were asked to reflect on their experiences focusing on processes they engaged in throughout, how these processes shaped practices, and contextual variations. Transcripts were analyzed iteratively alongside data collection.

Results: Faculty developers continuously engaged in processes of negotiating, constructing, and attuning throughout international collaborations. Within these processes contextual factors were highlighted including the importance of paying attention to relationships of power and making explicit assumptions about paradigms and philosophies of education.

As these collaborations unfolded, the FDCM was cycled through multiple times. Participants viewed their relationships more through a lens of shared learning and benefit as less as transactional in nature.

Conclusion: The study demonstrates the utility of the FDCM in framing international faculty development collaboration. It can be used to inform how faculty developers engage in this work in intentional ways and to guide preparation/reflection/debriefing and promote learning from these experiences.

PODIUM 4.4 -- 1:45-2:00 [10 min presentation followed by 5 min Q&A]

What We Really Mean by Equity, Diversity, and Inclusion in Postgraduate Medical Education: A Critical Narrative Review

Justin Lam^{1,2,3}, Michal Coret¹, Carlos Khalid¹, Kat Butler¹, Ryan Giroux^{1,4}, Maria Athina (Tina) Martimianakis^{1,2,3}

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Background: In recent years, equity, diversity, and inclusion (EDI) initiatives have been a rising priority for medical schools across North America, with increased programmatic and scholarly reform efforts in residency programs. Understanding how EDI issues are defined and operationalized, especially through the lens of critical race theory and intersectionality theory, is important in identifying new opportunities for scholarly exploration as well as areas for programmatic change.

Methods: Using a critical narrative approach, we searched the medical education literature from 2009-2019 for manuscripts that addressed equity, diversity, or inclusion in postgraduate learning environments. An initial database of 1155 articles was narrowed down by relevance to 136 articles. Analysis was informed by critical race and intersectionality theories, used to generate themes specific to equity diversity and inclusion.

Results: Most papers were descriptive in nature, documenting existing disparities without delving into underlying mechanisms of discrimination. A minority of papers applied theoretical constructs relevant to discrimination. Very few reported on interventions. Thematically, intersectionality as a focus was absent. Issues of gender, race, and ethnicity were most prominent, with some exploration of international training and immigration status, bullying and harassment, and disability. Diversity was predominantly conceptualized as an achievable end state of representation. Equity was conceptualized as fairness of opportunity. Inclusion was conceptualized as the absence of discrimination, harassment, and exclusion.

Discussion: We problematize EDI discourses in existing literature on postgraduate medical education, and offer important considerations for advancing and reorienting EDI research in medical education through the lenses of critical race theory and intersectionality.

PODIUM 4.5 -- 2:00-2:15 [10 min presentation followed by 5 min Q&A]

Clinician Scholar Program for Psychiatry Residents: What We Learned from the Literature and Similar Programs in North America

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Background: The Department of Psychiatry is creating a Clinician Scholar Program (CSP) for psychiatry residents interested in pursuing careers in education scholarship, quality improvement (QI), and creative professional activities (CPA).

Purpose: Our project aims to provide recommendations to our Department with respect to curricular development, including scope, program length, enrollment, faculty capacity, and financial implications of the new CSP.

Methods: We conducted an environmental scan in July 2020 for existing similar programs within the Faculty of Medicine at our institution. Programs for medical residents relating to education scholarship and QI were included. A brief literature review was also performed to identify publications in 2015-2020 from institutions where similar programs were offered in North America.

Results: Based on the environmental scan, we recommended enrollment capacity in the first few years of the CSP to be a minimum of two residents per year, depending on departmental resources and faculty capacity in education scholarship, QI, and CPA. Lessons learned pertaining to curriculum development, program evaluation, and key recommendations from other similar programs reported in the literature will also be considered prior to the implementation of the CSP.

Discussion: The CSP is expected to be operationally aligned with the Department's existing Clinician Scientist Program with respect to its program requirements, duration, selection process, on-boarding and off-boarding procedures, as well as the option for residents to enroll in a residency stream or a graduate stream of the program.

Conclusions: The CSP will create a "home-base" for department members interested in scholarship broadly defined.