Impact of Gaps in Surgical Training and Assessment on Performance in an Obstetrics and Gynecology Residency Program

Time: 2:00 – 2:15 (1st Presentation)
Presenter: Stephanie Scott

Authors: **Stephanie Scott** Dalhousie University, **Kevin Eva** University of British Columbia, **Nancy VanEyk** Dalhousie University

Background/Purpose:
Development of expertise in complex skills, including surgery, requires deliberate practice. How practice is structured varies with diverse training requirements often leading residents to spend considerable time in non-operative rotations. Because advantages and disadvantages of such "gaps" are unknown, we examined longitudinal learning trajectories of residents and compared performance after prolonged periods of practice vs after gaps in training.

Methods:
Daily operative assessments were analyzed retrospectively with learning curves generated. To systematically assess the impact of gaps, we compared scores received by residents after two successive months in which they were not assessed operatively and two successive months in which they were assessed at least once.

Results:
4400 scores for 33 residents over a 10 year period were analyzed. Residents performed better during their third sequential month of being assessed (mean=4.40, 95%CI=4.33-4.46) relative to during months after being away from the operating room for at least two months (mean=4.21, 95%CI=4.13-4.29; $p<0.01$; $d=0.7$). However, the maximum performance achieved was more strongly related to the number of times residents experienced a gap in training ($r=0.50$) than to the number of times residents experienced 3 consecutive months of training ($r=0.25$).

Conclusion:
Time away from surgical practice and assessment negatively impacted short-term performance, but may improve long-term learning. This speaks to the value of spaced education and is important for the design of longitudinal skills based training programs.

Seeing But Not Believing: Insights into the Intractability of Failure to Fail

Time: 2:15 – 2:30 (2nd Presentation)
Presenter: Andrea Gingerich

Authors: **Andrea Gingerich** University of British Columbia, **Stefanie Sebok-Syer** Stanford University, **Roseann Larstone** University of Northern British Columbia, **Christopher Watling** Western University, **Lorelei Lingard** Western University

Background/Purpose:
Inadequate documentation of trainee underperformance persists despite research-informed solutions targeting this failure-to-fail phenomenon. Documentation could be impeded if assessment language is misaligned with how supervisors conceptualize underperformance. Since frameworks tend to itemize competence while being vague about incompetence, assessment design may be improved by better understanding how supervisors experience being confronted with an underperforming trainee.

Methods:
We interviewed 22 physicians about their experiences supervising trainees who demonstrate incompetence. Following constructivist grounded theory, the interviews were conducted and analyzed iteratively.

Results:
Physicians began with an assumption: all trainees should be capable of progressing by applying learning to subsequent clinical experiences. Underperformance was therefore unexpected, and evoked disbelief in supervisors, who sought alternate explanations for the surprising evidence. Supervisors struggled to explain underperformance, often due to limited interaction time, and offered two main explanations: underperformance was being unable to engage with learning due to illness, life events, or learning disorders so that progression was stalling or stalled; or it was being unwilling to engage with learning due to lack of interest or insight. Once underperformance was identified, some physicians were compelled to flag stalled trainees to get them help and to flag disengaged trainees to protect patients.

Conclusion:
Physicians conceptualize underperformance as failed progression that cannot be recovered through supervision. Although failure-to-fail tends to be framed as a reluctance to document underperformance, the prior step of identification may be hampered by brief, isolated supervisory relationships that do not allow sufficient interactions to make sense of unexpected trainee performance.

Improving Resident Education and Patient Care Through National Physician Licensure

Time: 2:30 – 2:45 (3rd Presentation)
Presenter: Brandon Tang

Authors: **Brandon Tang** University of British Columbia, **Bernard Ho** University of Toronto

Background/Purpose:
The lack of a unified national physician licensure in Canada restricts physician mobility and negatively impacts patient care. Currently, working in a different province/territory requires a separate medical license for each of the thirteen medical regulatory authorities, despite similarities in licensure processes and required documentation. These barriers limit the exposure of early career physicians including residents, while restricting access to physician care, especially in rural communities.

Summary of the Innovation:
Resident Doctors of Canada (RDoC) has been advocating for a unified licensure process through several avenues. Firstly, our 2018 national resident survey demonstrated that while only 18.5% of residents plan to locum outside the province/territory of their primary practice, 52% would pursue locum experiences if no additional license applications were required. Secondly, RDoC published a Collaborative Statement on Canadian Portable Locum Licensure in 2017, with the support of national organizations. Thirdly, RDoC has advocated for improved physician mobility, and are supportive of the Fast Track and License Portability Agreements in development by the Federation of Medical Regulatory Authorities of Canada. However, these preliminary agreements do not include residents, as they require a license for independent practice.

Conclusion:
Our national survey identified residents' desires to practice in jurisdictions outside their primary province/territory. National processes to facilitate a unified or fast-track licensure would enrich resident education by facilitating exposure to diverse practice settings and would help address healthcare needs in underserved communities by encouraging resident mobility.

A Rural University-High School Healthcare Career Community Engagement Initiative: The Healthcare Travelling Roadshow

Time: 2:45 – 3:00 (4th Presentation)
Presenter: Sean Maurice

Authors: **Sean Maurice** University of Northern British Columbia, **Kristjan Mytting** University of Northern British Columbia, **Quinn Gentles** University of British Columbia, **Robin Roots** University of British Columbia, **Alina Constantin** University of Northern British Columbia, **Sonya Kruger** University of Northern British Columbia, **Warren Brock** University of British Columbia, **Olusegun Oyedele** University of British Columbia, **John Soles** District of Clearwater, **Shelley Sim** District of Clearwater, **David Snadden** University of British Columbia

Background/Purpose:
Youth from rural communities face significant challenges in the pursuit of healthcare training. Healthcare trainees with a rural background are more likely than those without to practice rurally as healthcare professionals.

Summary of the Innovation:
The Healthcare Travelling Roadshow (HCTRS) is an initiative that provides rural youth with exposure to healthcare careers, while providing healthcare students with exposure to rural opportunities, and an interprofessional education experience. To our knowledge, this is the first description of an initiative for rural university-high school healthcare career outreach that involves near-peer teaching, highly interactive sessions, and an interprofessional focus. Ten HCTRSs took place throughout northern, rural and remote British Columbia between 2010 and 2017.

Conclusion:
Questionnaires were delivered to youth, healthcare students and community members. Quantitative elements were graded on a 5-point Likert scale. Qualitative elements were analyzed thematically. Participants indicated that the program was very successful (4.71, 95% CI 4.63-4.79), would likely encourage healthcare students to consider rural practice (4.12, 95% CI 3.98-4.26), and that it inspired local youth to consider careers in healthcare much or very much (4.45, 95% CI 4.35-4.55). Qualitative analysis led to description of four themes: 1) Sincerity and interactivity sparking enthusiasm; 2) Learning through rural exposure and community engagement; 3) Healthcare student personal growth; and 4) Interprofessional collaboration and development. Constructive comments emphasized that meeting the needs of all stakeholders requires a degree of compromise. Success of the program requires meaningful engagement with multiple academic and community stakeholders.