

**Post-Project Grant Report Research, Education, Advocacy, and Direct
Service (READS Grants Program) American Association for Cancer
Education (AACE)**

Project Title: The Effects of a Residency Curriculum Change on Near-Peer Mentorship of Radiation Oncology Residents

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Narrative Section

1. We confirm that the tangible output and project goal have been complete. Specifically, the AAACE READS Grant supported the completion of a qualitative study using semi-structured interviews with Canadian radiation oncology residents, to examine the impacts on peer-mentorship after implementation of a new residency curriculum. In addition to meeting our primary objective, our interviews brought forth additional insight about the impact of the COVID pandemic on peer-mentorship, and it's interplay with a new simultaneously curriculum change.
2. The design was an exploratory, qualitative study using semi-structured interviews to explore the peer-mentorship experiences of Canadian radiation oncology residents after the implementation of nationwide residency curriculum change, known as Competency by Design (CBD). Specifically, two cohorts of residents were invited to participate (via convenience sampling) in anonymized interviews – one being the final cohort before the new curriculum was implemented (non-CBD), and the other being the inaugural year of the new curriculum (CBD). Interviews were de-identified and transcribed. Iterative data collection was conducted in parallel with thematic analysis methods, using both deductive and inductive analysis, to generate themes to describe the findings. A semi-structured interview guide was used consistently to guide interviews and explore the following domains:
 - a. Personal mentorship/mentee experiences and purpose
 - b. Initiation of mentor/mentee relationship
 - c. Discussion topics, ranging from general discussion to specific radiation oncology situations
 - d. Ability/willingness to seek/provide mentorship
 - e. The impact of a new curriculum implementation on items a-d above
 - f. Improvements and suggestions offered by the participant

Overall, 14 interviews were conducted with 6 non-CBD residents and 8 CBD residents, at which point thematic saturation was achieved. No major changes were made to the interview guide throughout the research study, with clarification of questions offered at the participant's request. Subsequent coding and analysis resulted in overarching themes that address our main objective in examining the near-peer mentorship experiences of residents enrolled in a CBD vs. non-CBD curriculum. Themes generated also subsequently addressed our specific research questions as outlined in our proposal.

3. Project goals were met successfully, although with some slight delays in recruitment of resident participants due to the COVID-19 pandemic. We estimated 20 interviews required for thematic saturation, which was achieved after 14 interviews, with interviewees representing 8 out of 10 eligible radiation oncology training programs across Canada. There was an adequate balance of participants from non-CBD and CBD cohorts, and all desired areas of discussion in the semi-structure interviews were addressed. Demographic data was also collectively collected from all participants.
4. Overall, despite inherent heterogeneity amongst different residency programs across the country, participants in the first cohort of the CBD curriculum identified fewer opportunities for peer mentorship than their non-CBD colleagues. Many participants attribute this to the fact that there is no precedent set when one is the first cohort of a new curriculum change, and so many new processes require trial and error to optimize. Specific areas discussed included the lack of guidance and support for a new CBD-specific resident evaluation process, as well as a lack of mentors to discuss uncertainties about CBD-specific changes to the timing of specialist board exams, electives, and the later stages of residency training.

Overall, we learned that regardless of curriculum change, peer-mentorship tended to thrive when they can occur as spontaneous and organic in-person interactions – an experience that was severely limited by the COVID-19 pandemic. An unexpected outcome from our project involved participants sharing their experiences with mentorship during the pandemic, and strategies they used to help continue mentorship as much as possible. This additional factor helped enriched participants' discussion regarding improvements and suggestions to mentorship, and helped emphasize the need to cultivate and create situations for in-person, informal mentorship to occur.

Finally, while the mentorship experience was impacted as a result of curriculum change, radiation oncology-specific learning did not appear to be majorly affected. Many participants attribute this to the collegiality of their colleagues, but also that curriculum change mainly impact the logistics and administrative aspects of residency training, with minimal change to clinical exposure and responsibilities.

5. Preliminary findings were given as an oral presentation at the 2021 Richard K. Reznick Wilson Center Research Celebration at the University of Toronto. Final results are to be presented as a poster at the 2022 Canadian Association of Radiation Oncology Annual meeting in September 2022. An accompanying manuscript (which is currently in preparation) is planned to be submitted to the Education section of the International Journal of Radiation Oncology, Biology and Physics. We also plan to submit this work for presentation at the next International Cancer Education Conference and/or at the International Conference for Residency Education.