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5

Analyzing Resident Perceptions of Current Radiation Oncology Evaluation Methods

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Background: In an effort to facilitate positive change in radiation oncology (RO) resident evaluations, we collect and report resident familiarity and perceptions of current evaluation methods. We hypothesize familiarity with evaluation methods is predictive of the perceived utility of evaluations, stress or intimidation of evaluations, and behavioral changes.

Methods: A survey with Likert-scale questions was distributed to RO residents at 13 institutions. Questions assessed resident familiarity with evaluation methods, satisfaction and utility of different aspects of evaluations, stress, or intimidation of receiving evaluations, and likelihood of changing post-evaluation. Likert-type scales included: 1) not familiar=1; extremely familiar=5; 2) extremely unsatisfied=1; extremely satisfied=5; 3) strongly disagree=1; strongly agree=5; 4) extremely unlikely=1; extremely likely=5. Summary statistics are reported as (median, IQR). Regression analysis was used to analyze relationships between different variables.

Results: Eight of 13 programs responded to the survey with a response rate of 50% (52/104 residents). Surveyed residents reported being "not familiar" with the Next Accreditation System (1, 1-1) and "slightly familiar" with the six Core Competencies and the factors use to assess them (2, 2-3). Satisfaction with aspects of the resident evaluations was variable: frequency (3, 3-4), timeliness (3.5, 3-4), clarity of strengths or areas of improvement (4, 3-4). Overall, residents agreed that evaluations were useful in informing them of their competence, progress, strengths, and areas of improvement (median 4). Residents were neutral when asked whether they agreed with the statement, "receiving evaluations intimidates me," although 24/52 (46%) reported either "somewhat" or "strongly" agreeing with the statement (3, 2-4). Most residents agreed that receiving evaluations was stressful (4, 2-4). Additionally, residents indicated they were "very likely" to change behaviors and practices following evaluations (4, 4-5). Resident-reported familiarity with the evaluation methods was not found to be a significant predictor of the utility of evaluation methods (coefficient= -0.02, p=0.83), stress (coefficient= -0.11, p=0.62), or intimidation of receiving evaluations (coefficient= -0.06, p=0.792), or the likelihood of changing post evaluation (coefficient= 0.41, p=0.204).

Discussion: Familiarity with evaluation methods is not correlated with perceptions or behavioral changes necessitating further investigation of alternative predictor variables. Despite the low familiarity with evaluation tools, most residents reported that evaluations were useful and likely to elicit changes in their behaviors and practice, highlighting the value of current evaluation methods. This study is a part of a larger multi-institutional project that aims to consolidate evaluation methods across different institutions and develop interventions to improve the training process for the RO trainees.

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6

Evaluating The Oncology Research Internship (Orion) During the Covid-19 Pandemic: A Comparison of Virtual and In-Person Iterations

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Background: The Oncology Research Internship (ORION), a novel resident-supervised initiative for medical students (MS), was first established in 2018 and found to be beneficial to both residents and MS. The COVID-19 pandemic halted many scholarly programs which relied heavily on mentorship through in-person interactions. We report results of the first virtual program, adapted to the COVID-19 pandemic, and compare participant feedback to previous in-person iterations.

Methods: ORION applications were open to first- and second-year MS. A panel of 3 physicians reviewed and scored applications. Successful MS applicants were paired with resident supervisors; each pair supervised by a staff oncologist. Compared to previous years, all meetings, correspondences and presentations between MS, residents, and supervising oncologists were conducted exclusively remotely. At the program's conclusion, each MS delivered a live virtual oral presentation of their completed case report, previously done in-person. Resident and MS participants completed questionnaires pre-/post program. Responses were collected on a 5-point Likert scale. Survey results from this virtual and the previous in-person programs were compared.

Results: Of 54 applications (previously 32 in 2018), 9 MS (three first-year, six second-year) were accepted and assigned to 9 volunteer residents (6 radiation oncology, 2 medical oncology, 1 pathology). To date, 9 manuscripts have been completed with 2 submitted for publication (1 published, 1 under review). Survey response rates were 100% (9/9) for residents and 89% (8/9) for MS. In the post-program surveys comparing the virtual and prior in-person programs, 87.5% (7/8) MS felt comfortable completing a clinical research project (22% strongly agree (SA), 62.5% agree (A), previously 25% and 75% respectively) and 100% (8/8) felt comfortable writing a case report (50% SA, 50% A, previously 75%, 25% respectively). All MS felt comfortable giving an oral research presentation (37.5% SA, 62.5% A) and teaching another MS to complete a case report (37.5% SA, 50% A). Similar to the in-person program, MS unanimously agreed that ORION was a beneficial experience (100%) and felt the program contributed to their career goals (100%, previously 88%). Post-program, all residents felt comfortable as a supervisor (67% SA, 22% A, previously 33%, 67% respectively), reviewing manuscripts (56% SA, 33% A, previously 33%, 50% respectively) and providing constructive feedback to trainees (67% SA, 33% A, previously 17%, 67% respectively).

Discussion: Compared to the in-person program, the virtual ORION retained strongly favourable ratings from MS and residents alike. These findings support adapting similar programs to a virtual setting when in-person interactions are not feasible.

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7

Evaluation of a Radiation Oncology Microclerkship as a Component of Medical Student Training

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