Published in final edited form as:

Int J Radiat Oncol Biol Phys. 2018 July 15; 101(4): 786–788. doi:10.1016/j.ijrobp.2018.02.153.

The Resident Individual Development Plan as a Guide for Radiation Oncology Mentorship

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Strong mentor-mentee relationships can help set the stage for future successes. Mentorship in its varied forms, is commonly recognized as important in the medical field (1, 2). Good mentorship can foster improved career satisfaction and success (3-6). A recent survey of residency graduates identified “faculty mentorship” as the most valued factor in respondents' residency experience (7).

The value and importance of mentorship extends beyond residency; mentorship can play a vital role in the careers of fellows and junior faculty (8-13). Mentoring in graduate medical education has been touted as an essential factor that should be available throughout training and career establishment (14), yet few dedicated mentoring programs exist. The American College of Radiation Oncology runs both medical student/resident and resident/attending mentorship programs which attempt to match mentee/mentors over coffee at ASTRO's annual meeting. The majority of resident mentorship, however, occurs informally through faculty members at the trainee's institution.

We have recently instituted a formal resident individual development plan (rIDP) at our institution. This program was established based on resident feedback identifying a desire for additional mentorship. We modeled our program on individual development plans (IDPs) utilized by the Federation of the American Societies for Experimental Biology (FASEB) for post-doctoral scholars in 2002 and later by the NIH in 2012. Its original intent was to provide an organized format for trainees to regularly assess career goals with their mentors, early in the training period. A secondary objective was to broaden the notion of “successful” career outcomes to both academic and non-academic pathways.

We introduced the rIDP as a yearly exercise for radiation oncology residents in 2016 and 2017. To evaluate its utility, participants took an 18-question pre-test assessment scored on a Likert scale to identify strengths, weaknesses, and the existence of 1-, 2-, and 5- year plans

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Conflicts of Interest: The authors report no conflicts of interest.

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(this study qualified for exemption under the University's Institutional Review Board). They then completed the rIDP, a 27-question self-assessment of career skills and goals. These responses were used as prompts during a one-on-one discussion with a faculty member. The yearly exercise concluded with a post-test assessment asking the same questions as the initial survey. No formal statistical comparison testing was performed due to the small size of the cohort.

Completion of the rIDP was associated with an increase in confidence in knowing how to achieve career goals, having a plan to develop strengths, and the mentor-mentee relationship (Figure 1). Residents expressed confidence in patient work up, treatment planning, toxicity management, and palliative care (mean scores 2.92 - 4.08 out of 5). 'Billing and coding' (mean: 1.38) and 'Negotiating insurance and health care systems' (mean: 2.31) were identified as areas in need of additional training (Figure 2). These areas have been the focus of new lectures added to the resident educational curriculum.

Regular discussions with a mentor can help to identify trainees at high risk of burnout and may provide avenues for early intervention, a growing and serious concern in oncology (15, 16). These discussions can also provide an opportunity for female trainees to connect with role-models in careers where they may see few female physicians (9, 17). A lack of role models for combining career and family responsibilities, as well as poor mentorship were key factors identified among early-career women physicians who left academic medicine (18). A structured framework for discussing career obstacles and strategies to address them could lessen the negative impact of these issues and prevent the loss of talented physicians.

We have found the rIDP to be a useful tool to foster mentoring in residency training and serve as a scaffold for establishing career guidance. Future directions include longer term follow up on the rIDP in early career radiation oncologists, in both academic and non-academic settings. The rIDP may provide the framework on which to build a more formal mentoring relationship and can provide a benchmark against which to measure progress in mentor-mentee goals.

Acknowledgments

All authors have approved the final article. This project was supported in part by the University of Wisconsin Carbone Cancer Center Support Grant P30 CA014520.

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Figure 1.

Residents were asked to assess their career plans, as well as strengths and weaknesses before and after conducting the resident Individual Development Plan (rIDP). The mean pre-test (blue) and post-test (red) assessment scores are shown on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). Questions not scored on a Likert scale not shown.

Figure 2. Resident self-assessment on clinical and non-clinical skill sets, with mean score (diamond) and interquartile range (bars) on a Likert scale from 1 (least confident) to 5 (very confident). Responses on these topics were used to prompt the discussion between resident mentees and faculty mentors during the rIDP. Questions not scored on a Likert scale not shown.