The Profession

Applicant Interview Experiences and Postinterview Communication of the 2016 Radiation Oncology Match Cycle

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Summary

Gamesmanship during the residency interview process occurs across a multitude of medical fields, and radiation oncology is no exception. This study sought to build on prior published work investigating match violation behaviors and postinterview communication and to explicitly capture student preferences regarding the radiation oncology application process. We hope that these findings contribute to a greater understanding of applicants’ match experiences and help craft a more transparent and ethical match process in the years ahead.

Purpose: To characterize applicant interview experiences at radiation oncology residency programs during the 2016 match cycle and to assess applicant opinions regarding postinterview communication (PIC) after recent attention to gamesmanship noted in prior match cycles.

Methods and Materials: An anonymous, institutional review board—approved, 29-question survey was deployed following the rank order list deadline to all 2016 radiation oncology residency applicants applying to a single institution.

Results: Complete surveys were returned by 118 of 210 applicants, for a 56% response rate. Regarding possible match violation questions, 84% of respondents were asked at least once about where else they were interviewing (occurred at a median of 20% of program interviews); 51% were asked about marital status (6% of interviews); and 22% were asked about plans to have children (1% of interviews). Eighty-three percent of applicants wrote thank-you notes, with 55% reporting fear of being viewed unfavorably if such notes were not communicated. Sixty percent of applicants informed a program that they had ranked a program highly; 53% felt this PIC strategy would improve their standing on the rank order list, yet 46% reported feeling distressed by this obligation. A majority of applicants stated that they would feel relieved if programs explicitly discouraged PIC (89%) and that it would be preferable if programs prohibited applicants from notifying the program of their rank position (66%).

Conclusions: Potential match violations occur at a high rate but are experienced at a minority of interviews. Postinterview communication occurs frequently, with...
Introduction

There has been recent attention in academic radiation oncology regarding gamesmanship in the match process, with multiple program directors (PDs) suggesting that a “wave of integrity” was warranted after observing—both anecdotally and with the evidence of a recent study—some of the misleading behaviors that occur by both applicants and programs (1, 2). These behaviors, though often within the allowable guidelines of the National Resident Matching Program (NRMP) Match Participation Agreement (MPA), can violate the spirit of the match, a process whose goal is to accurately and fairly pair programs with applicants (3). Misleading statements and gestures occur not only during the interview but also in the postinterview period, a time when additional contact between applicants and programs may take place in part with the intention of improving the other’s ranking on their respective rank order lists (ROLs).

Questionable interview and postinterview behavior has been noted among many specialties (4-8). The recent work by Holliday et al (2) demonstrates that radiation oncology is no exception, showing high rates of potential match violations, de facto pressure on applicants to provide assurances to programs in the postinterview period, and the tendency of this postinterview communication (PIC) to impact final rank lists, despite the sometimes seemingly benign nature of those discussions. In response to the recent attention brought to this behavior in the 2015 to 2016 academic year, 22 radiation oncology PDs published a nonbinding declaration of intent to more closely adhere to guidelines in the MPA (9). Many PDs also declared their intention to limit unsolicited PIC and to route any needed communication through the program coordinator.

In 2016 we performed a follow-up survey to ascertain whether the recent attention and associated public discourse have impacted the rates of certain interview behaviors, to assess associated applicant pressures/distress, and to determine how 2016 residency applicants felt about the role of PIC.

Methods and Materials

An anonymous, institutional review board—approved, 29-question survey was sent to all 210 radiation oncology applicants applying to a single institution in the 2016 match cycle (Supplement; available online at www.redjournal.org) via an institutional survey software program, Class Apps SelectSurvey.Net (Microsoft, Redmond, WA [2008]). Questions assessed demographic information, select inquiries that may have arisen during the interview considered to be in violation of the NRMP MPA, postinterview behavior on behalf of both applicants and programs, policies used during PIC, and applicant opinions about these experiences. The survey was disseminated on February 26, 2016 after the ROL deadline, to encompass the entire scope of PIC and to diminish applicants’ concern about the possible impact their survey responses may have on their position on program rank lists. Two reminder e-mails were sent, and the survey was closed on March 21, 2016. Duplicate responses from the same internet protocol address were prohibited. No awards or cash prizes were offered to solicit participation.

The data were analyzed and tabulated to report descriptive results. To investigate demographic factors potentially associated with particular match violations, univariate binomial logistic regression was performed. Statistical significance was assumed at the 0.05 level. All statistical analysis was performed using JMP Pro V10 software (SAS Institute, Cary, NC).

Results

Complete surveys were returned by 118 of 210 applicants, for a 56% response rate. Two respondents fully completed the survey but stated that they received no radiation oncology interviews, and thus 116 complete responses were used for analysis.

Demographic and interview characteristics

Table 1 presents the demographics of survey participants. The majority (78%) were male, a percentage that is representative of the applicant pool surveyed because 162 of 210 applicants (77%) initially e-mailed were male. The majority (also 78%) were MD candidates; a minority were applicants reporting resultant distress. Respondents stated that active discouragement of both thank-you notes/e-mails and applicants’ notification to programs of their ranking would be preferred. © 2016 Elsevier Inc. All rights reserved.
DO candidates (3%), and 19% were combined medical and doctor of philosophy (MD/PhD or DO/PhD) candidates. Seventy-one percent of respondents reported originating from institutions with home radiation oncology residency programs. The median number of interviews offered was 15, and the median number attended was 12.

Applicants’ perspective on program behavior during the interview

Applicants’ recollection of program behavior during the interview process is summarized in Table 2. The majority (84%) of respondents reported that they were asked at least once to disclose which other programs had offered them interviews or at with whom they were planning to interview. Applicants reported that this question occurred at a median of 20% of programs at which they interviewed (interquartile range [IQR] 8.5%-33%). Fifty-one percent of respondents reported they were asked at least once about current or future marital status, a question that arose at a median of 6% of programs at which interviews occurred (IQR 0%-21.7%). Twenty-two percent of all respondents were asked at least once about plans to have children. Overall, applicants reported that a median of 33% of programs at which they interviewed explicitly stated during the interview that PIC, including thank-you cards and e-mails, was actively discouraged (IQR 18%-47%).

Table 2  Applicants’ perspectives on program behavior during the interview  

<table>
<thead>
<tr>
<th>Interview item</th>
<th>Number (%) of applicants (N=116)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Over the course of the interview trail, how frequently were applicants asked about other interviews?</strong></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>19 (16)</td>
</tr>
<tr>
<td>≥1 time (ie, at least once)</td>
<td>97 (84)</td>
</tr>
<tr>
<td>≥5 times</td>
<td>22 (19)</td>
</tr>
<tr>
<td>≥10 times</td>
<td>5 (4)</td>
</tr>
<tr>
<td><strong>Over the course of the interview trail, how frequently were applicants asked about marital status?</strong></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>57 (49)</td>
</tr>
<tr>
<td>≥1 time (ie, at least once)</td>
<td>59 (51)</td>
</tr>
<tr>
<td>≥5 times</td>
<td>17 (15)</td>
</tr>
<tr>
<td>≥10 times</td>
<td>7 (6)</td>
</tr>
<tr>
<td><strong>Over the course of the interview trail, how frequently were applicants asked about children or plans to have children?</strong></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>91 (78)</td>
</tr>
<tr>
<td>≥1 time (ie, at least once)</td>
<td>25 (22)</td>
</tr>
<tr>
<td>≥5 times</td>
<td>9 (8)</td>
</tr>
<tr>
<td>≥10 times</td>
<td>4 (3)</td>
</tr>
</tbody>
</table>

Applicants’ perspective on program PIC

Thirty-two percent of respondents reported receiving “unsolicited post-interview communication” from one or more programs. Twelve percent of applicants reported that at least one program informed them they were ranked to match, and 23% reported that at least one program asked the applicant how highly the program would be ranked. Four percent of applicants responded that special incentives were offered by at least one program to have the applicant rank the program higher.

Applicant PIC

Thank you notes were written by 83% of respondents; 17% wrote no thank-you notes at all. Applicants expressed a variety of opinions regarding thank you notes/e-mails: 19% said they felt obligated to write them because otherwise they might be viewed unfavorably, 20% expressed their desire to write them regardless of the impression this left because they wanted to express their gratitude, and 36% felt a mixture of both obligation and desire to express thanks. Sixty percent of applicants indicated in some form of communication that they had ranked a program highly; 53% felt that informing their top program would improve their chances of matching there, and 46% stated that this sense of obligation caused them distress. Eighteen percent felt PIC altered their rank list.

Applicant opinions regarding PIC

Applicants varied in their preferences regarding PIC. Eighty-nine percent of applicants stated that they would feel relieved if programs explicitly discouraged thank-you cards or e-mails (Fig. 1A), and 66% stated it would be preferable for programs to prohibit applicants from notifying the program of their standing on the applicant’s ROL (Fig. 1B). When asked whether being “ranked to match” is information an applicant would like a program to share with him or her before rank list submission, 58% responded affirmatively. However, 66% of respondents said that this action is also likely to cause distress, given the pressure applicants may feel to affirm their interest in the program.

In terms of defining preferences for engagement in PIC, 39% of applicants stated that communication should be allowed to be initiated by either party as long as NRMP rules are respected, with an equal proportion (39%) stating that neither party should communicate after the interview at all, to preserve the integrity of the match (Fig. 1C).

Demographics associated with PIC

Women were more likely than men to be asked about marriage (odds ratio [OR] 2.7, 95% confidence interval [CI] 1.09-7.15, \( P = .032 \)). Women were more likely to have PIC initiated by the program (OR 2.23, 95% CI 0.9-5.5), but this did not reach statistical significance (\( P = .08 \)). Women were no more likely to be asked about plans to have children when compared with men (OR 1.47, 95% CI 0.51-3.94, \( P = .45 \)); women were also not more likely to send thank-
Fig. 1. (A) Applicant responses to the true/false statement: “I would feel relieved if programs explicitly discouraged postinterview communication, such as thank-you cards/e-mails.” (B) Applicant responses to the proposal to actively discourage/prohibit applicants from notifying their top programs of how highly that program will be ranked. (C) Applicant preferences regarding contact in the postinterview period. Abbreviation: NRMP = National Resident Matching Program.
you notes than men (OR 1.5, 95% CI 0.5-5.5, P = .49). Respondents with more interview offers, analyzed as a continuous variable, were not more likely to be offered special incentives from programs (OR 0.98, P = .74). On the other hand, physician scientists (MD/PhDs or DO/PhDs) were more likely to receive such incentives (OR 7.3, 95% CI 1.1-58.1, P = .036).

Discussion

This study provides an update to the recently published results evaluating candidates in the 2013 interview cycle and adds valuable information regarding the frequency of match violation behaviors, associated distress caused, and applicant opinions regarding possible PIC policy changes (2). Despite the recent emphasis on enacting greater integrity during the interview and match process, our results demonstrate that potential match violation behaviors have continued in the intervening years between the 2013 survey by Holliday et al (2) and our present assessment. Specifically, among those surveyed, 84% were asked about where else they were interviewing, 51% were asked about marital status, and more than 20% of respondents were asked about plans to have children. Although the overall incidence of these behaviors occurring at least once is high, the majority of applicants responded that they occurred at a small number of interviews, suggesting that such behaviors may stem from a minority of programs.

Additionally, our results show that many applicants feel a sense of obligation to both write thank-you notes and to volunteer to their top program(s) where they intend to rank the program. With nearly 90% of respondents stating that thank-you notes should be explicitly discouraged by programs, and nearly 70% agreeing that programs should prohibit applicants from communicating rank list positions (even in an unsolicited manner), applicants agreed resoundingly with these potential policy changes to minimize associated behaviors. In summary, we can deduce 2 major conclusions from this updated assessment: first, that potential match violation behaviors still occurred in 2016, despite the increasing public attention to the matter; and second, that match gamesmanship in the form of PIC is associated with a significant amount of applicant distress.

Per the NRMP MPA (3), “both applicants and programs may express their interest in each another; however, they shall not solicit verbal or written statements implying a commitment.” This is an oft-quoted line in the published literature addressing the topic of interview and postinterview integrity, with multiple authors commenting on the benevolent intentions yet subjective interpretation of this guideline (10, 11). In our survey, a majority of applicants felt compelled to notify their top institution of its order on their rank list because of the perception that this communication would help improve their chances of matching there, despite the fact that nearly 50% of applicants said initiating this communication caused them distress.

Similarly, although the majority of respondents stated that they would like for a program to inform them if they were ranked to match, nearly 70% stated this would cause distress owing to pressure on candidates to affirm interest in the program. These results highlight the dissonance between the MPA’s guideline and the reality of interviewee communication during the period between their interview and finalization of their ROL. The ambiguity of the MPA guideline allows ongoing gamesmanship and, given the distress shared and support verbalized by the applicants surveyed in this study, suggests that the time is ripe for change.

One can further support definitive policy changes when placing our recent results into a broader context. Multiple studies have demonstrated both applicant and PD mistrust when engaging in PIC, with studies reporting a range of 30% to 90% of applicants and PDs perceiving that they are lied to at some point during this process (12-15). Grimm et al, in their recent survey of PDs, describe this phenomenon well (15): “applicants may feel there are few repercussions to making false statements, but when the extent of hyperbole and the number of offenders get critically high, it calls into question the authenticity of all post-interview communications.” With many PDs not trusting the nature of applicants’ voluntary notification of their programs’ high rank, this behavior may be fruitless, and in fact Grimm’s survey (15) showed that only 5% of PDs “always or usually move applicants up on their ROLs after the applicant promises to rank their program No. 1.” The quandary for many medical students is their perception that most if not all students are engaging in such behavior, and even if they are uncertain about the ethics of participating, many feel concern that they may be left behind if they abstain.

Match violation behaviors and questionable PIC have been documented in a number of studies and fields, including plastic surgery, general surgery, dermatology, and emergency medicine, not to mention several large studies documenting these phenomena among a wide variety of medical fields (5, 7, 8, 13, 16, 17). Of the various fields documenting this behavior, perhaps plastic surgery and internal medicine have taken the most significant strides toward reducing/eliminating it. The Alliance for Academic Internal Medicine generated a PD-directed statement on PIC (18), recommending that “programs should discourage routine thank-you notes or e-mails” and that applicant questions should be directed “to an approved contact list.” Academic PDs in the field of plastic surgery went a step further, establishing a uniform policy on PIC delineating the following (19): “There can be no unsolicited contact from anyone in the program to the applicant except the coordinator needing missing information from the applicant...contact with the residents in a program can only be initiated by the applicant...[and] there will be no communication between faculty and applicants after the interview except for faculty communicating with their own advisees.”

The NRMP has recently taken steps to improve the clarity of their MPA, specifically to address the
the Match: to protect applicants from undue persuasion, collegiality, and bringing us closer to the original purpose of interviewing each other, dispelling distrust, improving the climate of the Match process.

Despite this recent change, there remain opportunities for improvement. The steps taken by the fields of internal medicine and plastic surgery show that changes to recommit to transparency and integrity can be enacted by the field itself rather than awaiting a formal parent organization like the NRMP to modify policy. We thus propose the following: that PDs and their academic faculty reeducate and recommit themselves to the reduction of match violation questions, that programs actively discourage thank-you notes and other forms of PIC, and that programs both (1) explicitly discourage applicants from notifying programs of where they may stand on their rank lists; and (2) discourage their own faculty interviewers from similar action.

Our survey has a number of limitations. With a 56% response rate, reporting bias may exist. Applicants were surveyed after the ROL deadline, and their responses may have been subject to recall bias. Additionally, it is not possible to deduce which questions may have been “inappropriately” solicited by the interviewer versus information (such as marital or parental status) that was offered by the applicant in an unsolicited manner. Furthermore, the deployment of this survey after the Wu et al editorial and subsequent commentaries may have altered or suppressed the typical behaviors and PIC phenomena from the usual baseline seen in recent years. Last, it is not clear which institutional representative may have asked certain questions (ranging from a front-desk employee to a PD or chairperson), so we cannot comment on which specific personnel contributed to these findings.

Despite the aforementioned limitations, we believe that this study offers meaningful insight into the current climate of the radiation oncology match process and steps that can be considered to facilitate improvement. In his commentary on manipulation and the match, Dr Carl Fisher captured this evolution perfectly (6): “ultimately, commitments to violation prevention and transparency could free everyone from the pressures to overlay their interest in one another, dispelling distrust, improving collegiality, and bringing us closer to the original purpose of the Match: to protect applicants from undue persuasion.” We hope that our field can fulfill these expectations because both programs and applicants alike will reap the benefits of greater authenticity and honesty while navigating the complicated but ultimately rewarding match process.

Conclusion

This study builds on prior work regarding the prevalence of potential match violation questions faced by radiation oncology applicants. Our results indicate that potential match violation questions are experienced by a high number of applicants but may originate from a minority of programs. Our findings also indicate that PIC causes distress and that actions taken to minimize potential sources of gamesmanship (actively discouraging thank-you notes; prohibiting students from volunteering information to the program about their standing on the ROL) would be welcomed by a large majority of the applicants. We hope that these findings contribute to a greater understanding of our applicants’ match experiences and help craft a more transparent and ethical match process in the years ahead.

References


