

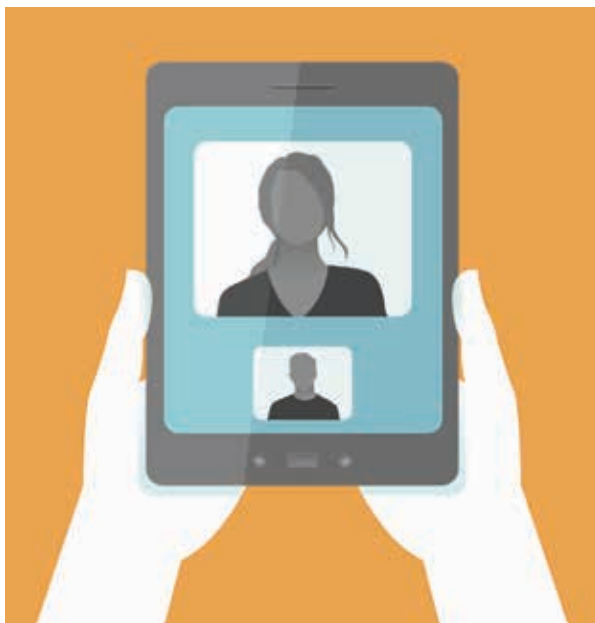
## Streamlining the residency interview process using Web-based teleconferencing

The American Society of Health-System Pharmacists has suggested that, by 2020, residency training will be a prerequisite for pharmacists involved in direct patient care.<sup>1,2</sup> Approximately 4500 graduating pharmacy students and new practitioners registered to use the Pharmacy Online Residency Centralized Application Service (PhORCAS) in 2013 with hopes of obtaining 1 of the 2694 spots available as a post-graduate year 1 (PGY1) pharmacy resident; over 1400 of these candidates went unmatched.<sup>3</sup> Applicant qualifications are easily quantifiable yet remarkably equivalent among multiple candidates. Therefore, it is difficult to determine who should be invited for an onsite interview, unless program personnel have personal experience with an applicant. Program representatives must use resources wisely and maintain patient care and administrative services while interviewing candidates for a residency. Residency programs struggle with a limited timeline, given that PhORCAS may open in late November; however, candidates may not have everything complete in the database until early January. This allows 30–60 days for interviewing and determining a rank list for a program. This time frame may be too short to accommodate these tasks, especially when programs face a high volume of candidates.

We report the use of Web-based technology for preliminary mini-interviews

of PGY1 pharmacy residents at Hillcrest Hospital, a 500-bed Cleveland Clinic community hospital.

**Background.** Skype (Microsoft Corp., Redmond, WA) is an online video chat



application that does not require the use of a telephone. It is most commonly utilized between computer users. FaceTime (Apple, Cupertino, CA) is a video chat

application that is compatible most commonly with iPhones. Our goal was to determine, through behavioral-based interviewing, which candidates might best match with our pharmacy residency program. The use of this technology helped to balance patient care and administrative duties with the interview process while minimizing interview time and costs for our PGY1 pharmacy residency program.

For the previous seven years, we conducted onsite interviews based on a ratio of about 14 candidates for each PGY1 residency position. Most recently, we reviewed our top 35 candidates in 2011–12 to select candidates for onsite interviews. The substantial time required to interview candidates and the poor fit of some of the candidates with our program caused us to reflect and reevaluate our process for interviewing resident candidates.

### **Analysis and resolution.**

As in the past, we used a paper screening tool to determine our top 24 potential candidates for two PGY1 resident positions whom we intended to invite for onsite interviews. This tool was based on many criteria, including academic record, work experience, research or publications, extracurricular involvement, and community

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outreach. The applicant evaluation form had an unlimited score, depending on the extracurricular involvement and leadership of each candidate. The residency program director (RPD) utilized the form to conduct the initial evaluation. However, new this year, once the 24 candidates with the highest scores were identified, we e-mailed them an offer for a Skype or FaceTime interview. If they responded with interest, a date and a time for the interview were scheduled. We scheduled up to six mini-interviews each day over a five-day period. Interviews occurred between 11:30 a.m. and 1:30 p.m., when most candidates likely had a lunch break.

Our program representatives initiated contact with the candidate on the day of the interview. Up to 20 minutes was allotted for each interview. We used five behavioral-based interview questions from our institution's behavioral-based interviewing bank that we felt would best help us ascertain whether there was a good fit between our institution and the candidate. We chose one question from each category of the behavior-based interviewing bank. These categories addressed the technical skills, expectations, "fit" with our staff, and goals of the applicant. Each question was worth 5 points, and preceptors graded each candidate based on how well they felt the candidate answered the question. We used two Apple iPads to conduct the interviews. Two clinical pharmacy specialists or administrators interviewed each candidate. After our program representatives completed their assessments, the candidates had 5 minutes to ask questions regarding the program and our interview process. Two representatives each scored the candidates individually based on a total possible score of 30. The average of these scores from the Skype or FaceTime interview was evaluated alone and then added to the score from the paper screening tool to determine which candidates were offered an onsite interview. Candidates who scored fewer than 20 points from either program representative on the Skype or

FaceTime interview were removed from onsite interview consideration. Candidates with the highest Skype or FaceTime scores were given preferential onsite interview status.

We received a total of 30 candidates from nine pharmacy schools for our institution's two available PGY1 residency positions. Two candidates with incomplete applications were eliminated from further consideration. The remaining 28 candidates were evaluated by the RPD with our initial applicant evaluation form. Candidate scores ranged from 28 to 126 on the initial screening tool. Four candidates scored fewer than 30 points on the initial screening tool and were not considered further. We offered Skype or FaceTime interviews to the remaining 24 candidates.

The Skype or FaceTime interview scores ranged from 16 to 27. For 4 of 6 candidates with initial screening scores of greater than 90, there was a positive correlation with higher Skype or FaceTime scores. One candidate who seemed superior on paper barely made the cut for an onsite interview, given a FaceTime score of 20. Another candidate had a FaceTime score of 21 and, in looking back, was not a quality candidate for our program. No definitive correlation was observed in those with initial screening scores of less than 90 but greater than 40. Some candidates with scores in this range had very high Skype or FaceTime scores (1 candidate scored 46 on the initial screening form yet had a Skype or FaceTime average score of 27 out of 30 points). For candidates who scored between 30 and 40 during the initial screening, 80% scored high on the Skype or FaceTime interview; for the other 20%, the Skype or FaceTime interview confirmed the finding of the initial screening score (i.e., poor candidate).

A majority of the interviews lasted no more than 10 minutes, with a few requiring 15 minutes. Thus, for the 24 Skype or FaceTime interviews, we spent approximately 240 minutes (four hours) total among nine preceptors and administrators on screening candidates. We successfully connected with all candidates scheduled for a Skype or FaceTime

interview. We experienced some difficulty with connections when the Apple iPads were used in administrative offices in the basement level of the hospital. At times, the use of Skype was more difficult than FaceTime. Two of the 24 interviews required a follow-up telephone call to complete the interview because we failed to maintain a clear Skype connection. These 2 interviews occurred with our representatives on the basement level. Loss of the video connection prevented us from evaluating body language related to certain questions, which was part of our evaluation.

All candidates established a Skype or FaceTime account. Each candidate chose the preferred modality for the interview. A majority of candidates ( $n = 16$ ) chose to use FaceTime, as many did not have Skype accounts. Candidates conducted their interviews from advanced pharmacy practice experience locations, from home, or from pharmacy schools.

We set the maximum number of onsite interviews at 18 versus 26 in the previous year. Each interview lasted 6 hours. Interviews were offered in descending order of the Skype or FaceTime score. The mini-interview scores were added to the initial screening scores for any applicants with equal Skype or FaceTime scores. None of the cumulative scores were equal. The candidate with the higher cumulative score was given an interview first. The use of Skype or FaceTime interviews helped us confidently decrease the number of interviews by eight candidates, or 48 onsite interview hours. Skype or FaceTime screening saved a total of 44 hours of onsite interviewing time. We successfully matched both of our positions with quality candidates.

**Discussion.** Programs should choose a candidate for an onsite interview if the candidate seems qualified<sup>4</sup>; however, this may not be an economically feasible process, depending on the hospital or health care institution's size and resources as the number of candidates who apply continues to increase. Further, it is difficult to discern candidates' qualifications, since

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most are graduating from a doctor of pharmacy program and have no notable professional work history that may indicate success in a residency program or attrition into an institution's staff postresidency. We hypothesize that a majority of programs likely evaluate candidates based on their ability to multitask, their academic achievements, discernment of similar letters of recommendation, and candidate involvement in the pharmacy profession and in the community. Unfortunately, what is on paper may not be any indication of a candidate's interpersonal skills and "fit" for a particular program. Thus, unless each program can bring in all candidates who seem equally qualified to assess their fit and interpersonal skills, solely utilizing a criteria-based evaluation form may not be optimal.

Our applicant pool was reduced this year; this was possibly related to several new residency programs that started in the area or to difficulties experienced with the initiation of PhORCAS. However, we evaluated 30 candidates for onsite interviews, which may be a reasonable pool for a community hospital. We used Skype or FaceTime to reduce our onsite interview time and to provide an additional tool for assessing the fit for our program and a candidate's interpersonal skills. This seemed like a reasonable option based on our own personal experiences with this technology and our enormous time commitment to bring in a large number of candidates for onsite interviews.

Our experience is comparable to that found during non-pharmacy Web-based interviewing.<sup>5</sup> Authors from a medical urology program assessed interview candidates' and faculty satisfaction with Web-based versus onsite interviews via a survey. Participants were randomly assigned to participate in either a Web-based interview or an onsite interview. Specifically, comparative effectiveness, convenience, and cost between participants in each group were assessed. A total of 33 candidates and 6 faculty members participated in the Web-based interview process. Ninety-five percent of participants completed surveys for the research study. Web-based interview participants graded its effectiveness significantly lower than traditional onsite interview participants (21 versus 25 on a 30-point satisfaction scale,  $p < 0.003$ ). The cost to both the program (staff time and other resources) and the candidate (travel time and time away from school) was lower for participants in the Web-based interview group.

Onsite interviewing takes a substantial amount of time. Greater time spent interviewing compromises the time that can be spent providing patient care or performing other job responsibilities. In 2011, we spent approximately 156 hours conducting 26 onsite interviews. Each preceptor spent a minimum of 1 hour with each candidate, and the RPD spent a minimum of 2 hours with each candidate during the 6-hour interview. We interviewed three or four candidates per day. Preceptors and administrators found it difficult to perform daily patient care or administrative duties on interview days due to the time

required for resident interviews. Unfortunately, alternative clinical or administrative coverage was not feasible.

The Skype and FaceTime interviews required a total of approximately 4 hours. However, the Web-based process saved 48 hours of onsite interviewing, yielding a net save of 44 hours. An entire workweek was gained using the mini-interviews, providing more time to provide patient care or perform other job responsibilities. Conducting six fewer interviews led to additional monetary savings for our institution (not including personnel costs). Meal costs were reduced for onsite interviews. While this was not a substantial amount for us, reduced costs for meals may provide substantial cost savings for larger institutions with more candidate interviews. Larger institutions that incorporate mini-interviews with Skype or FaceTime and that reimburse candidates for travel may realize several thousand dollars in savings by eliminating candidates who are not a good fit for the program.

A candidate's personality is an important component of the interview process and yet remains elusive when applications are only submitted to programs online via PhORCAS or as hard copies via U.S. mail. Some programs use social media such as Facebook to glean more information about a candidate's personality.<sup>6</sup> Eighty-nine percent of social media survey respondents (404 of 454 respondents) agreed that candidates' posts on social media sites were fair game for assessing an applicant's character, ethics, and personality.<sup>6</sup> Greater than 50% of the participants agreed that social media

content did not affect resident selection. Social media may offer a glimpse of a candidate's personality; we have utilized social media previously, but we have not used it as a means to completely exclude candidates.

Our experience is limited by the fact that we did not assess how candidates felt about the mini-interviews, and we did not verify the actual identity of potential candidates with a driver's license or other form of identity. We did not have any candidates refuse the Web-based interview; however, we did not explore the implications of losing a quality candidate who may refuse such an interview. In the future, we may need to evaluate the cutoff score of the Skype or FaceTime interview and choose a higher number than 20 to eliminate "borderline" candidates.

We continue to struggle with how many candidates to rank to successfully match the most competitive, best-fit residents for our two PGY1 pharmacy resident positions. Future research involving probabilities of matching based on program size may provide further information on the number of candidates an institution must interview onsite and subsequently rank to ensure a match with a candidate.

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