Original contribution

Have personal statements become impersonal?
An evaluation of personal statements in anesthesiology residency applications

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Abstract

Study Objective: To evaluate personal statements submitted to a major academic anesthesiology program to determine the prevalence of common features and overall subjective quality, and to survey anesthesiology program directors as to how they utilized these statements during the resident selection process.

Design: Structured analysis of de-identified personal statements and Internet-based survey of program directors.

Setting: Large academic anesthesiology training program.

Subjects: 670 applicant personal statements and academic anesthesiology program directors.

Measurements: Prevalence of 13 specific essay features and 8 quality ratings were calculated for the essays and correlated with other aspects of the residency application, as abstracted from the Electronic Residency Application Service (ERAS) files. A 6-question survey regarding use of personal statements was collected from program directors.

Main Results: 70 of 131 program directors queried responded to our survey. Interest in physiology and pharmacology, enjoyment of a hands-on specialty, and desire to comfort anxious patients were each mentioned in more than half of the essays. Candidates invited for an interview had essays that received higher quality ratings than essays of those not invited (P = 0.02 to P < 0.0001). Higher quality ratings were also strongly associated with graduation from a U.S. or Canadian medical school, applicant file screening score, female gender, and younger age. Interrater reliability was good (kappa 0.75-0.99 for structural features, and 0.45-0.65 for quality features). More than 90% of program directors found proper use of English to be a somewhat or very important feature of the essay. Only 41% found the personal statement to be very or somewhat important in selecting candidates for interview invitations. However, over 90% stated that they used the statements during actual interviews with invited applicants.

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1. Introduction

The electronic residency application service (ERAS) is used by anesthesiology residency programs to help facilitate applicant selection. In addition to objective data, such as United States Medical Licensing Examination (USMLE) scores, medical school transcripts, and ERAS-verified documents [letters of recommendation, Medical Student Performance Evaluation (MSPE; “Dean’s letter”)], applicants are required to submit a personal statement as part of their ERAS application. The subjective nature of the statement makes it a unique and valuable tool in identifying those candidates to be selected for an interview. Anecdotally, the personal statement has been used to help differentiate between applicants who have similar academic records.

However, readers at our institution have found an increasing number of essays each year that tend to share common features. No study has systematically evaluated the content of these statements. We conducted a masked analysis of personal statements submitted by applicants to an anesthesiology residency at a major academic teaching hospital to address this issue.

2. Materials and methods

This study was approved by the Partners HealthCare Institutional Review Board. Informed consent from individual applicants was not deemed necessary because the data (personal statements) were de-identified and previously had been voluntarily submitted to the residency program as part of the application process.

All applications to the Brigham and Women’s Hospital anesthesiology residency program in 2005-2006 were studied. Of a total of 683 applications received, 670 with complete personal statements were included in the analysis. Essays were printed and de-identified by removing the applicant’s name; a randomly generated identification number was used to link the essay to other application data. Reviewers were masked with respect to the candidate’s other application data. Raters were masked to the applicants’ identities by removal of the applicant names and identification numbers prior to analysis. All raters had some experience with personal statements and the applicant selection process as part of their previous medical school work. None of the raters was involved in the selection process for this particular applicant pool. The application year selected and dates of actual essay review ensured that none of the applicants could have begun training in our program during the time of the study.

Four independent reviewers evaluated the essays for content, grammar, and originality. That committee included the senior investigator, who had over 10 years’ experience with resident selection, and who did not participate in the actual essay rating process (SS). A list of commonly included themes was generated based on historically observed subject matter noted by members of the admission committee at our institution. Preliminary analysis of 50 essays by the reviewers was used to generate a list of 13 potential recurrent themes, which were then used to score the entire cohort of essays. The specific content of each essay was assessed to determine if any of the 13 commonly discussed features was present. In addition, each essay was subjectively graded on a 5-point Likert scale (superior, very good, average, fair, and poor) on 5 grammatical and structural characteristics, and three overall quality ratings [1]. Interrater reliability was assessed by having all 4 reviewers analyze an identical subset of the personal statements.

A computer-based survey was emailed to all 131 Accreditation Council for Graduate Medical Education (ACGME)-accredited anesthesiology residency program directors across the U.S. A reminder/repeat survey was sent to each program director after 4 weeks, and all surveys were collected over a 6-week period. The program directors were asked questions regarding: 1) the importance placed on the personal statement in the resident selection process, 2) the elements felt to be most important in a personal statement, and 3) the grading system used to determine the value of a personal statement.

Descriptive statistics were used to analyze the prevalence of themes discussed in the essays, distribution of quality scores, and program directors’ responses. The subset of candidates invited for interview was compared with those not invited across structural and quality ratings by chi square analysis. Interrater reliability was assessed using the Fleiss’ kappa statistic.

3. Results

A total of 670 essays were evaluated by the 4 reviewers, and 9 resident applications were excluded from analysis because no essay was available. Seventy surveys from program directors were completed and returned, for a response rate of 53.4%. Program size did not differ between responders and non-responders (34.8 ± 17.3 vs. 38.7 ± 20.3; P = 0.25), and geographic distribution was similar between the groups (Chi square analysis; P = 0.36). Interrater reliability was very high for features of the essays, with
kappa typically 0.75-0.99, and moderate to high for quality ratings (kappa = 0.45-0.65).

The prevalence of various features of the essays is shown in Table 1. Interest in physiology and pharmacology, enjoyment of a hands-on specialty, and desire to comfort anxious patients were each mentioned in more than half of the essays. Discussion of a particular case from medical school, enjoyment of acute care situations, and desire to care for a diverse patient population were mentioned at least 30% of the time.

Quality ratings of the essays are shown in Fig. 1. Higher quality ratings were strongly associated with graduation from a U.S. or Canadian medical school ($P < 0.0001$ for each parameter), applicant file screening score ($P = 0.0006$ to $P < 0.0001$), invitation for interview ($P = 0.02$ to $P < 0.0001$), female gender ($P = 0.01$ to $P = 0.0002$), and younger age ($P = 0.0004$ to $P < 0.0001$). Membership in Alpha Omega Alpha correlated only with “overall organization” and “compelling” quality ratings ($P < 0.05$ for each). USMLE step 1 score did not correlate with any of the quality ratings.

The overall rating of “originality or personal nature” was strongly positively correlated with the number of commonly discussed features ($P < 0.0001$). Specific elements associated with higher ratings for originality included discussion of a family or friend’s illness, a case from medical school, enjoyment of physiology and pharmacology, desire for a hands-on specialty, enjoyment of acute care situations, desire to care for one patient at a time, and desire to comfort anxious patients.

An invitation to interview was extended to 27% of the applicants whose essays were evaluated. Discussion of interest in physiology and pharmacology was correlated with an invitation to interview (70% among invitees vs. 57% among those not invited; $P = 0.0017$), as was an expressed desire for an academic career (29% vs. 19%; $P = 0.0038$). No other feature of the essays was associated with an invitation to interview.

Program directors’ responses to the survey are shown in Fig. 2. Nearly 95% of responding program directors reported that they always or sometimes used the personal statement in deciding whom to invite for an interview, but only 41% considered it very or somewhat important. Eighty-four percent of responding program directors do not formally score the essay. Use of English was cited as somewhat or very important by more than 90%. Other aspects of the essay were rated as less important to responding program directors. Eighty-eight percent of responding program

**Table 1** Prevalence of features found in personal statements submitted for application to anesthesiology residency

<table>
<thead>
<tr>
<th>Item</th>
<th>Prevalence (%)</th>
<th>95% Cl</th>
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<tbody>
<tr>
<td>Love of physiology and/or pharmacology</td>
<td>60.0 (56.2, 63.6)</td>
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<tr>
<td>Desire to comfort anxious patient/enjoy intense patient interactions</td>
<td>55.7 (51.9, 59.4)</td>
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<tr>
<td>Enjoyment of hands-on specialty</td>
<td>52.2 (48.5, 56.0)</td>
<td></td>
</tr>
<tr>
<td>Enjoyment of acute care situations</td>
<td>43.9 (40.2, 47.7)</td>
<td></td>
</tr>
<tr>
<td>Discussion of particular case from medical school</td>
<td>32.8 (29.4, 36.5)</td>
<td></td>
</tr>
<tr>
<td>Desire to care for diverse patient population</td>
<td>31.5 (28.1, 35.1)</td>
<td></td>
</tr>
<tr>
<td>Plans academic career</td>
<td>21.5 (18.5, 24.8)</td>
<td></td>
</tr>
<tr>
<td>Plans fellowship after residency</td>
<td>20.1 (17.3, 23.4)</td>
<td></td>
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<tr>
<td>Desire to care for one patient at a time</td>
<td>13.3 (10.9, 16.1)</td>
<td></td>
</tr>
<tr>
<td>Discussion of family or friend’s illness</td>
<td>11.1 (9.0, 13.8)</td>
<td></td>
</tr>
<tr>
<td>Discussion of personal illness</td>
<td>6.1 (4.5, 8.2)</td>
<td></td>
</tr>
<tr>
<td>Reasons for turning from interest in surgery</td>
<td>5.6 (4.0, 7.5)</td>
<td></td>
</tr>
<tr>
<td>Reasons for turning from interest in internal medicine</td>
<td>4.2 (2.9, 6.0)</td>
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Cl = confidence interval.
directors use the essay on the interview day as a basis for discussion with the applicant.

4. Discussion

Our data show a high prevalence of common features found within personal statements, and a general ambivalence amongst those program directors for whom the statements were intended. Our impression, that the personal statement has become generalized, and - for the most part - lacks the originality that may optimize its utility in distinguishing one applicant from another, was confirmed by the data.

Program directors from various specialties have used different selection criteria in an attempt to streamline the applicant decision process and help identify their desired candidates [2,3]. Given the increasing competitiveness of acceptance into residency programs, applicants often try to tailor their personal statements to a particular program [4]. The recent emergence of numerous online content sources has provided applicants with a forum to discuss what programs are searching for and how to bolster their candidacy. As these websites (such as thedoctorjob.com) provide guidelines for “what programs want to see”, they may serve as a source of unoriginality that students follow as they try to prepare their personal statements [5]. Actual sample personal statements may be downloaded and read, and advice from purported experts on what to include in a statement may be found. To this end, a homogeneity has developed amongst personal statements and plagiarism may be detected [6]. Interestingly, the ERAS website provides little guidance regarding what should be included in the statement, but does sternly warn about the consequences of plagiarism [7].

There is a paucity of literature to help identify the aspects of a residency application that most influence the decision of program directors regarding an invitation to interview. One study evaluated Emergency Medicine (EM) residency selection criteria across all programs nationwide. EM program directors ranked the areas comprising the application in terms of overall importance to the applicant’s selection status. Interview performance, clinical grades, and letters of recommendation were ranked in the highest tier as "most important". Personal statements were ranked in the lowest tier [8].

More systematic analysis of personal statements, however, suggests that they may be predictive of clinical performance. A 2003 study analyzed for content personal statements submitted upon matriculation to a British medical school, using methodology similar to ours. Essays with higher overall content scores (indicating discussion of a greater number of common themes) were found to predict positive clinical performance. In contrast to the previous study, letters of recommendation were not found to reliably predict performance [9].

Our data show specific subject content that can be found in a majority of submitted personal statements. Characteristics specific to the study of anesthesiology, such as interest in physiology and pharmacology, hands-on procedures, acute care situations, and emotional patient interactions, were included in approximately half of all submitted entries. However, applicants were more likely to be invited for an interview at our institution if their statement included some of the noted common themes. In particular, a love of pharmacology or physiology, or a desire to pursue an academic career, was each associated with an invitation to interview. In contrast, we had hypothesized that statements including such common themes would be viewed less favorably by the resident selection committee.
Truly original and compelling personal statements were remarkably rare, as determined by the overall quality scores. Our reviewers repeatedly encountered similar subject matter, potentially making each essay seem less interesting and more commonplace. However, we did show a strong correlation between the number of common features and the score for originality/personal nature of the essay. Although these features may be found in a majority of essays, their specific content may provide a source of personality and originality. This apparent paradox may be due to the fact that “personal stories” were included within the 13 common themes. Although these anecdotes were identified as common themes, they may also have provided the essay with a personal quality that made it unique and original. The inclusion of “personal” matter as part of the common themes created an internal inconsistency that we must acknowledge.

It is unclear why personal statements are so unoriginal. The influence of the aforementioned internet sites, which often prescribe a guideline for prospective residents to follow, may be to blame. Hoping to optimize their chances of gaining an interview, many applicants may replace their “personal” statement with one that follows a sort of recipe for success. In addition, the program directors themselves, who provide guidance to their students, may not be advocating for them to provide truly personal essays. The majority of those directors surveyed only consider the personal statement “sometimes” when deciding upon which applicants to interview. Furthermore, when using the statements to differentiate between applicants, only a small fraction of responders found them to be “very important” in the selection process. The only statement feature to receive an overwhelming grade of importance was the candidate’s appropriate use of the English language. Similarly, our data showed that applicants whose essays received high marks for grammar, word usage, and good overall organization, were more likely to receive an invitation for interview. This finding may reflect an increasingly large percentage of international applicants who submit essays and who may lack a strong grasp of the English language.

In contrast, content such as “discussion of personal interests” and “reasons for selecting anesthesiology” received a majority of "neutral" to "moderately important" ratings by the program directors. These data may suggest that the program directors do not particularly value a unique, personally driven essay. Surprisingly, during an interview nearly 90% of program directors use the information contained within the essay to help guide their interaction with the candidate. The program director may have a valid reason to utilize the essay during the interview, such as to foster conversation or assess the integrity of the candidate. Given the similarity between essays shown by our analysis, however, the value of this widespread practice may be questioned. It is likely that the current system tends to perpetuate essays that conform to commonly expected thematic elements. We feel that the personal statement may be a missed opportunity for an applicant to show their unique qualities and distinguish themselves from other candidates. Perhaps if residency programs published more explicit instructions regarding the desired content of the personal statement, the utility of these essays could be enhanced.

Our study does have some limitations. First, these data are from one institution’s applicant pool, which ordinarily would limit the generalizability of our results. However, the 670 applications reviewed represent about 45% of the total national pool of applicants to anesthesiology residencies in 2006 [10]. Second, the structured essay analysis is necessarily subjective, given the different observers participating in the study. However, the kappa statistics showed good interrater reliability. Third, the algorithm used by our department to decide interview invitations may differ from that used at other institutions. Although we found that the invitation proportion increased monotonically with each quality rating, it is possible that some program directors might weigh a poorly written essay more heavily than a well-written one. Fourth, we did not survey the applicants themselves to elicit which resources they used or what advice they received when writing their essays. We also did not survey the medical school deans or other potential medical student advisors to help determine what advice the applicants may be receiving. Obtaining this set of information may yield further insight into the writing of personal statements for anesthesiology residency. Finally, in any survey-based study, response bias may occur. On the basis of program size and geographic distribution of the program directors, we do not believe this was a major factor in our study.

In conclusion, personal statements, as currently submitted, discuss a number of common themes and thus might appear to offer little utility in differentiating residency candidates. Despite this finding, essays including more of the common themes were associated with higher overall quality scores as well as more frequent invitations for interview. Moreover, program directors place little weight on these essays when deciding whom to interview, but still use the essays to facilitate interview discussions.

References