

Deceit, lies and plagiarism in residency applications

EDWARD FELLER, MD, FACP, FACC

DISHONESTY IN SELF-reported academic and non-curricular achievements in medical student applications for residency is widespread and under-recognized. As examples:

- Of 239 applicants to an ophthalmology residency who cited publications, 22 had an unverifiable publication.¹
- In a radiology residency, one-third of applicants' publications claimed as "accepted," or "in press," were not published after two years.²
- Of OB/GYN fellowship applicants claiming Alpha Omega Alpha (AOA) membership, 11% were not found on the AOA website.³

Medical school and the residency Match process are highly competitive. Academic excellence, achievements in non-curricular activities and impressive peer-reviewed publications are important factors in residency decisions. Self-imposed or external pressure to succeed challenge the ethics of medical students.



Why do medical students lie?

Conflicts of interest abound in pressure to get Honors in a clerkship, a coveted faculty recommendation, or publications to improve chances to Match at an elite residency. This motivation can overwhelm ethical behavior, inducing students to pad their resumes while ignoring

or rationalizing their bad behavior. Misconduct may deteriorate gradually, perhaps starting with falsely filling in a missing data point on a manuscript or granting oneself an unearned leadership position in an organization. Some students progress to blatant fabrication, falsification or plagiarism.

Some misconduct is tempting because it is unlikely to be detected and so easily accessible. In a family medicine survey, personal statements submitted by students accounted for more than half of all misrepresentations.⁴ I Googled "pediatrics personal statements" and in a minute unearthed numerous websites offering sample essays and active rewriting or creation of statements. One (www.medfools.com/personal-statements) offered 3 levels of payment (termed "contributions") depending on level of perceived need – \$60.00 for well-written essays by native English speakers to \$95.00 for work needing editing of grammar,

style, format, content and theme.

Application misconduct does not occur in a vacuum. Some students copy other students' course work, divulge Objective Structured Clinical Examination (OSCE) content to peers preparing to take this exam or record "neuro exam normal" when it was not done. Lapses in research integrity by faculty are a parallel professional morass, influencing students who witness or are aware of transgressions. Is it surprising that plagiarism detecting software identified plagiarized faculty letters of recommendation in 11.8% of all student Electronic Residency Application Service (ERAS) applications?⁵ Medical school infrastructure affects student professionalism. Worrisome climates stress competition, careerism, grades, and publications or have unclear or inadequate emphasis on scientific integrity.

Some distortions are not willful, resulting from disorganization, sloppiness or inadequate training or misconceptions of what constitutes plagiarism. Data suggest that students frequently conclude erroneously that plagiarism is absent if they cite the original author or substitute a few words or paraphrase content. Accidental deceit also occurs by misidentification of notes or drafts that are undetected as unedited when cut and pasted from someone else's creative effort.

Who is more likely to cheat?

Individual personality traits linked to a higher likelihood of deceit include arrogance, competitiveness, narcissism, self-entitlement, perfectionism, insecurity about personal competency and impaired self-awareness of personal behavior.⁶ Stress or burnout, common

Table 1. Spectrum of application deceit

Authorship of non-existent articles, journals or presentations
Non-authorship of existing article
False claims – AOA membership, advanced degree
Plagiarism – personal statement
Falsified official documents
Moving self to higher authorship position
Articles listed as "published" when only "submitted"
Abstracts reported as full publication
Fake or inflated role in athletics, organizations, experiences
Undisclosed criminal records

among med students, are linked to ethical lapses.^{7,8} Data indicate that major psychiatric disorders are uncommon sources of misconduct. Yet, some dishonesty is due to anti-social or narcissistic personality disorders or grandiosity of mania. Inadvertent deceit can be related to attention deficit hyperactivity disorder (ADHD) or the impaired attention common in major depression.⁶

Safeguards to protect integrity of the Match

A 2013 Cochrane review concluded that there is sparse evidence that applicants who receive formal research ethics training are less likely to commit ethical breaches.⁹ Anti-plagiarism software for personal statements compares new material to existing content, although robust data on accuracy are lacking. Scanning software cannot detect plagiarized personal statements not available publicly.¹⁰

ERAS now include a space for the unique PubMed identifier (PMID) for

publications. Applicants are asked, but not required, to confirm publications. But, there are no identifiers for submitted, in press or accepted articles or conference presentations. Some residency programs ask or require applicants to provide a hard copy of all articles listed in ERAS. In Great Britain, the Match service screens all applications for plagiarism.

Limitations, inaccuracies in published reports

Criteria for searching databases such as Medline or Google Scholar to confirm authorship are not standardized. In published reports of application distortion, the inability to find some claimed publications is due to incomplete or inadequate search strategies. One program may detect only identical word matches of ≥ 8 consecutive words while another scores on a minimum percentage of plagiarized content (ie, 10%). Misspellings, incomplete citations, word or name changes due to marriage or other reasons may render

legitimate citations impossible to substantiate. Published reports of residency application misconduct use different study methodology, assess incomparable criteria – confined only to candidates invited for interviews or all applicants. Data from one institution or specialty is not generalizable to the entire spectrum of institutions. Anti-plagiarism software cannot detect unattributed duplication of figures, tables or images or identify plagiarism of ideas and concepts. Some of the most comprehensive searches detect malfeasance in only a small percentage of applications.¹¹

Academic dishonesty contaminates the residency Match, threatening its integrity. Instruction about plagiarism is vital. Although deliberate intent is difficult to assess, conscious misrepresentation of academic credentials, research productivity and non-academic accomplishments is probable in as many as 5 to 10% of submitted applications.¹² ❖

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Author

Edward Feller, MD, FACP, FACG
Clinical Professor of Medical Science at Brown University;
co-editor-in-chief, *Rhode Island Medical Journal*

Correspondence

Edward Feller, MD, FACP, FACG
Clinical Professor of Medical Science
Brown University
Box G- M 264, 222 Richmond Street, Providence RI 02912
401-863-6149
Edward_Feller@brown.edu

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