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The Plastic Surgery Common Application: Improving Efficiency and Reducing Inequity in the Application Process

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Summary: The residency application process is expensive, costing an average of $2149 in application fees per applicant during the 2020–2021 cycle. Additionally, the number of applications per applicant continues to rise annually across all specialties. This considerable cost creates a financial barrier for students, particularly those from first-generation and underrepresented backgrounds. Moreover, the Electronic Residency Application Service (ERAS) application generates a lengthy, diluted output that hinders a holistic review. We developed the Plastic Surgery Common Application (PSCA), a focused, specialty-specific application external to ERAS with the goal of lessening the financial barrier for students and improving reviewer satisfaction. The PSCA was revised over a 5-month period after prepiloting with stakeholders. All integrated plastic surgery programs were invited to participate. Of the 86 plastic surgery programs, 20 agreed to participate in the pilot, accepting both ERAS and PSCA for direct comparison. A total of 181 completed applications were received through the PSCA. In a postparticipation survey, most applicants and reviewers felt that the PSCA offered a reasonable alternative to ERAS, despite minor technical difficulties. The PSCA pilot demonstrates that there is a reasonable alternative to applying to residency through ERAS and offers a template for developing a system that is not cost-prohibitive to applicants. The PSCA also demonstrates the benefit of a specialty-specific, customizable application for reviewer efficiency and satisfaction. *(Plast Reconstr Surg Glob Open 2022;10:e4078; doi: 10.1097/GOX.0000000000004078; Published online 26 January 2022.)*

INTRODUCTION

Nearly every medical specialty has identified problems with the current residency application process, often citing uncertainty, time, and costs. In 2020, the average residency applicant spent $2149 applying to 95 residency programs through the Electronic Residency Application Service (ERAS).[1] This significant expense, not including the cost associated with interviewing, creates a significant financial barrier for students, notably those from first-generation and underrepresented backgrounds. Additionally, the number of applications per applicant continues to rise annually as the number of applicants per specialty climbs and student anxiety over matching into their desired specialty heightens. Plastic surgery is particularly susceptible to this as a small, competitive specialty. Moreover, with the average applicant applying to most programs, reviewers are burdened with deciphering which applicants are genuinely interested in their program.[2]

To combat these well-recognized challenges, we sought to create and pilot the Plastic Surgery Common Application (PSCA), a focused application outside ERAS, aimed at lessening the financial barrier for students and improving reviewer satisfaction.

THE PSCA 1.0 PILOT

The PSCA was created using REDCAP software and revised over a 5-month period after prepiloting with key stakeholders. The application content was chosen with the goal of creating a concise application and was divided into four components: academics and research, activities and experiences, personal statement and short response

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essays, and letters of recommendation. Applicants were asked to limit their publications and presentations to 10 and elaborate on their two most significant research experiences. Similarly, the activities and experiences section was limited to two significant leadership and volunteer experiences. The personal statement was limited to 500 words, and applicants were asked three additional short response essays. Finally, applicants were asked to choose three letters of recommendation, rather than the four accepted by ERAS.

All integrated plastic surgery programs included in the 2020–2021 Match cycle were invited via email to participate in the PSCA 1.0 Pilot. The application was free to applicants and mirrored the ERAS timeline. Of the 86 integrated plastic surgery programs, 20 participated in the pilot, asking applicants to submit both ERAS and PSCA applications for a direct comparison. A virtual meeting was hosted with applicants to outline the goals of the pilot and acknowledge the stress of an additional application during an unprecedented year. Applicants completed 181 applications, which were sent securely to participating programs using Box Software (Redwood City, Calif.) in PDF format. Applicants and reviewers were invited to complete a postapplication survey after completion of the 2020–2021 match cycle.

EXPERIENCE UTILIZING THE PSCA AND SURVEY RESULTS

The PSCA 1.0 pilot experienced minor technical difficulties during the application process, including institutional servers flagging automated REDCAP emails as spam and premature submission of the application within the portal. Some medical schools were unaware of the pilot and hesitant to release applicant information, such as transcripts and dean's letters. However, with support from the American Association of Medical Colleges, these issues were resolved.

In the postapplication survey, applicants and reviewers were invited to directly compare the PSCA with ERAS. Most applicants felt that the limitations on their research, experiences, and personal statement were harmful to their ability to showcase their accomplishments. Many reviewers, however, felt that these limitations created a better application and allowed a more holistic review. Both applicants and reviewers appreciated the short answer essays, but many remarked that the questions could be improved. Most applicants and reviewers felt that the time required to complete the application was less than ERAS, and despite the lack of formal sorting mechanisms, reviewers felt that they were able to sort applications more efficiently using the PSCA. Overall, most applicants and reviewers felt that the PSCA offered a reasonable alternative to ERAS. Many respondents also remarked on the potential for the PSCA to alleviate the socioeconomic barriers associated with the application process.

DISCUSSION AND FUTURE DIRECTIONS

The PSCA 1.0 Pilot demonstrates that there is a reasonable, low-cost alternative to applying to residency outside ERAS. Despite the minor technical difficulties experienced during the pilot, the positive responses from applicants and reviewers reinforce that there is no reason why the application process should result in financial barriers. These costs contribute to a system that is prohibitively expensive for students from lower socioeconomic backgrounds, particularly underrepresented minorities.[3,4] The current system has resulted in fewer than 5% of future physicians coming from the bottom quintile of household incomes, whereas nearly 25% of incoming medical students come from families earning over $250,000.[3] ERAS fees represent nearly half of American Association of Medical Colleges revenue (41%) and create a conflict of interest, as this not-for-profit organization has vowed to improve the diversity of medicine by eliminating socioeconomic barriers.[5]

In addition to lowering the financial barriers associated with entering residency, the PSCA offers a customizable application that can be readily changed to meet the evolving needs of stakeholders. It allows for flexibility within the application timeline if plastic surgery should decide to transition to an early review or match. The feedback from the PSCA 1.0 Pilot highlights room for improvement within the application content, a flexibility that is not offered within ERAS. Moreover, strategies for evaluating applicant interest, such as a points allocation system, could be implemented through such a system. Our survey data also highlight a need for improved communication between applicants and programs on expectations regarding overinclusion of achievements.

Plastic surgery is not the only field developing creative solutions to the problems associated with the residency application process, and the PSCA offers a successful template for developing an alternative system. The PSCA, like any new system, will require further revision with the ultimate goal of replacing ERAS for plastic surgery applicants. Although this is a large endeavor, we believe that

Takeaways

Question: How can we improve the residency application process?

Findings: The Plastic Surgery Common Application, a free and concise plastic surgery-specific application was piloted with 20 programs in the 2020–2021 Match cycle for direct comparison with the Electronic Residency Application Service. The majority of reviewers felt that the Plastic Surgery Common Application was an improvement from ERAS in nearly every domain. Despite software limitations, the majority of both applicants and reviewers felt it offered a reasonable alternative to Electronic Residency Application Service.

Meaning: The Plastic Surgery Common Application offers a template for overhauling the residency application process, eliminating financial barriers to applicants and improving reviewer satisfaction.

innovation and equity should outweigh the comfort of perpetuating a system that profits from the students it was designed to serve.

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REFERENCES

1. AAMC. ERAS Statistics [Internet]. 2020. Available at https://www.aamc.org/data-reports/interactive-data/eras-statistics-data. Accessed August 29, 2021.
2. NRMP. Main Residency Match Data and Reports [Internet]. 2021. Available at https://www.nrmp.org/main-residency-match-data/. Accessed August 29, 2021.
3. O'Reilly KB. Ob-gyns get AMA help to redesign residency application process [Internet]. American Medical Association. 2020. Available at https://www.ama-assn.org/education/improve-gme/ob-gyns-get-ama-help-redesign-residency-application-process. Accessed August 29, 2021.
4. Millo L, Ho N, Ubel PA. The cost of applying to medical school—a barrier to diversifying the profession. *N Engl J Med.* 2019;381:1505-1508.
5. Quillen DA, Siatkowski RM, Feldon S; the Association of University Professors of Ophthalmology. COVID-19 and the ophthalmology match. *Ophthalmology.* 2021;128:181–184.