



Impact of Social Media on Applicant Perspectives of Ophthalmology Residency Programs

Sanket S. Shah, MD¹  Sravya Veligandla, BA² Christopher Compton, MD^{1,2} Hasenin Al-khersan, MD³ Jayanth Sridhar, MD³

¹Department of Ophthalmology, University of Louisville, Louisville, Kentucky

²Department of Ophthalmology, University of Louisville School of Medicine, Louisville, Kentucky

³Department of Clinical Ophthalmology, Bascom Palmer Eye Institute, Miami, Florida

Address for correspondence Jayanth Sridhar, MD, Department of Clinical Ophthalmology, Bascom Palmer Eye Institute, 900 NW 17th Street, Miami, FL 33136 (e-mail: Jsridhar1@med.miami.edu).

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Abstract

Purpose This article evaluates the relevance of social media to ophthalmology residency applicants in the setting of virtual interviews, the types of information sought by applicants, and the impact of rebranding of an institutional and departmental social media account.

Design Cross-sectional survey.

Participants Ophthalmology residency applicants from the 2020 to 2021 cycle.

Methods A voluntary survey was emailed to 481 applicants to the University of Louisville Department of Ophthalmology residency during the 2020 to 2021 application cycle to gauge the impact of social media on their perspectives of residency programs, especially with regards to a new departmental social media account.

Main Outcome Measures Applicants' use of social media platforms and specific components of departmental social media accounts found most useful.

Results The 13-question survey was completed by 84/481 applicants (17.5% response rate). Social media was used by 93% of respondents. Of those respondents reporting social media use, the most common platforms utilized included Instagram (85%), Facebook (83%), Twitter (41%), and LinkedIn (29%). Sixty-nine percent of respondents specifically used Instagram to learn more about residency programs. With regards to the rebranded Instagram account at the University of Louisville, 58% of respondents reported being influenced, with all asserting that the account positively encouraged them to apply to the program. The most informative elements of the account related to current resident profiles, resident life, and living in Louisville.

Conclusion A majority of responding ophthalmology residency applicants utilized social media to search for program information. A newly developed social media profile at a single institution positively influenced applicant impressions of the program, with the most importance assigned to information provided about current residents and typical resident life. These findings suggest key areas where programs should continue to dedicate online resources with targeted information to better recruit applicants.

Keywords

- ▶ residency
- ▶ Instagram
- ▶ social media
- ▶ medical student

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Background

Prior to the severe acute respiratory syndrome coronavirus 2 (coronavirus disease 2019 [COVID-19]) pandemic, the influence of social media was steadily rising in the world of academic ophthalmology. In 2018, the American Academy of Ophthalmology published guidelines for young ophthalmologists on how to use social media professionally,¹ followed by similar guidelines the subsequent year for ophthalmologists in academia and clinical practice.² This impact spilled over into recruitment of ophthalmology residents: in 2020, a cross-sectional analysis of all ophthalmology residency programs concluded that the departments of “Top 20” ophthalmology residency programs had both a greater presence and following on social media than did other departments across the country.³

Due to COVID-19, ophthalmology residency interviews shifted to a virtual format for the 2020 to 2021 application cycle. As such, several programs, including the University of Louisville (UL), looked to increase applicant exposure to the institution through social media platforms. As of August 9, 2020 the UL Instagram account had about 100 followers, less than 10 posts, and 0 to 5 likes on each post. The residents felt that aforementioned statistics were insufficient to be of any appreciable benefit to potential applicants. The residents also believed that an account with such statistics could portray a program as antiquated by not being active on social media. The UL Instagram account was rebranded that day with all previous posts deleted, a strong advertising push by residents on their personal Instagram accounts, and a stream of new, informative posts released in quick succession. The UL residency administration allowed all content to be generated by residents without administrative review to allow for real-time posting (i.e., stories and time-sensitive posts). The account is open to the public and accessible at http://www.instagram.com/louisville_eye/. Positive effects were reflected in anecdotal reports from motivated applicants. This survey-based study aims to objectively assess the impact of social media accounts on applicant perspectives of ophthalmology residency programs, with a focus on UL's experience as a “test case” for how retooling a social media profile impacted applicant impressions of and provided information about the residency program.

Methods

This study was granted exempt status by the Institutional Review Board at the UL. This study adhered to the tenets of the Declaration of Helsinki.

A voluntary survey on Google Forms was emailed to 481 applicants of the UL Department of Ophthalmology Residency Program during the 2020 to 2021 application cycle on February 3, 2021 by the lead author. They were made aware of the lack of identifiable information and that the results would be used for research purposes on the impact of social media on their perspective of residency programs. The survey was open for 3 weeks with a 17.5% response rate (84/481).

Qualitative data (questions such as “Did you look on social media to find more information about programs? If yes, which platforms did you use?”) from the survey (see **Supplementary Material S1**) was codified into a binary system while quantitative data (questions such as “Please rate the following items regarding the Instagram page on a scale of 1-5”) was recorded as submitted. Although there is no consensus on calculation of engagement metrics on Instagram, the authors have defined usage as the number of followers an engagement as the number of likes on each post divided by the number of followers. All data were analyzed using Microsoft Excel (Seattle, WA). Tukey-Kramer's Post-Hoc Honest Significant Difference was used to test for significance between groups of quantitative data.

Results

Survey results were obtained from 84 out of 481 (17.5%) applicants. Of the respondents, 93% used social media, with the most popular platforms being Instagram (85%), Facebook (83%), Twitter (41%), and LinkedIn (29%) (► **Fig. 1**). Nearly all (99%) respondents wished to find more information about programs on a Web site, and 55% on an Instagram account (► **Fig. 2**). Sixty of 84 respondents looked to social media to learn more about residency programs than could be found on program Web sites. Of those, 58 searched on Instagram, 19 on Twitter, 4 on Facebook, 1 on Reddit, and 0 on LinkedIn.

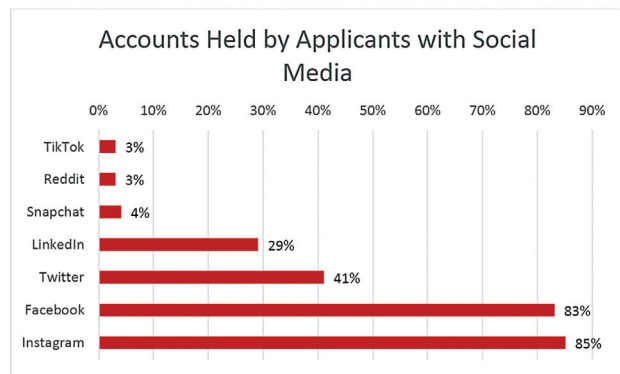


Fig. 1 Accounts held by applicants with social media.

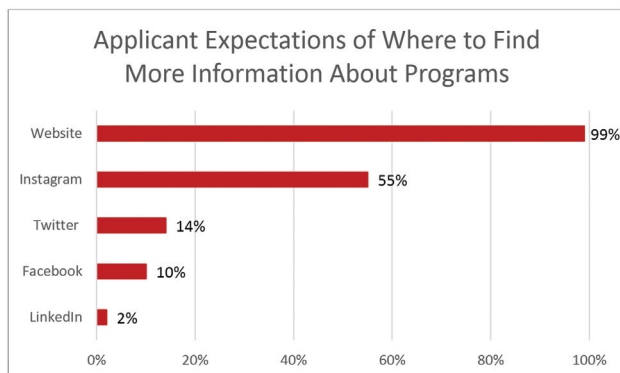


Fig. 2 Applicant expectations of where to find more information about programs.

Table 1 Overview of Applicant Perspectives of Ophthalmology Residency Program Social Media Presence

Criterion	Respondents (%)
Applicants surveyed	84 (100)
Applicants with prior knowledge of UL's Instagram profile	37 (44)
Applicants who thought profile was useful in learning about program	34 (40)
Applicants encouraged by profile to apply	27 (32)
Applicants not affected by profile	7 (8)
Applicants who thought profile was not useful in decision making process	3 (4)
Applicants who thought profile would have been useful in learning about program if they had prior knowledge of the account	64 (76)
Applicants who thought profile would have been encouraged to apply if they had prior knowledge of the account	49 (58)

Abbreviation: UL, University of Louisville.

University of Louisville Experience

During the application cycle the account usage increased by approximately 800% (over 900 followers from roughly 100 on August 9, 2020) and engagement roughly doubled from 0 to 5% to 5 to 10%.

Of the respondents, 56% did not know of UL's on social media presence; 44% (37/84) knew of the Instagram profile (►Table 1). Of those 37, 34 respondents found the profile useful in their application process with 27 stating it would encourage them to apply and 7 stating it would not have an effect on their application. Seventy-six percent (64) of respondents would have found the UL Instagram account useful in their application cycle to learn more about the program if they had known about the account, with 77% (49) of that subset stating that the account would encourage them to apply to the program and the remaining 23% (15) stating that it would have no effect on their decision. On a scale of large detriment to large benefit (See **Supplementary Material S1** for full scale), the Instagram account scored 4/5 on its contribution to the general impression of the

residency program. Fifty-eight percent (49) of all respondents regardless of prior knowledge stated their application process would have been influenced by the UL Instagram, and all of those respondents stated it would encourage, rather than dissuade, them to apply. On a scale of "absence of information" (1) to "very informative" (5), information on Instagram regarding current resident profiles, resident life, and living in Louisville scored 4/5 or above on average. All three of these elements were significantly more informative than other provided data points, including resident rotation schedules ($p < 0.001$), clinical sites ($p < 0.001$), clinical volume ($p < 0.001$), and attending profiles ($p < 0.001$) (►Fig. 3).

Discussion

In the post-COVID era, ophthalmology residency interviews have shifted to a virtual format, and applicants must learn more about programs digitally than ever before. In this small survey study, the majority of respondents looked to social media to learn more about residency programs. Programs are expected to maintain an informative Web site, and, of the social media platforms, Instagram is the most popular for applicants to use to learn about residency programs and ophthalmology departments. Actively engaging in social media can be beneficial to promoting a residency program as the majority of respondents reported that their decisions to apply would have been positively impacted by the UL Instagram account. There are paradoxical results in the study, as 55% of respondents reported preferring programs to maintain an Instagram profile despite only 42% reporting a general expectation of programs to have social media. This may reflect that the definition of social media may vary among applicants, as some may consider older platforms such as Facebook and LinkedIn more representative of "social media" than a newer platform such as Instagram.

In November 2020, the perspectives of medical student educators were published regarding the path to residency in ophthalmology.⁴ Specifically, the lack of clinical experience, changes to the United States Medical Licensing Examination scoring, mentorship at programs without ophthalmology

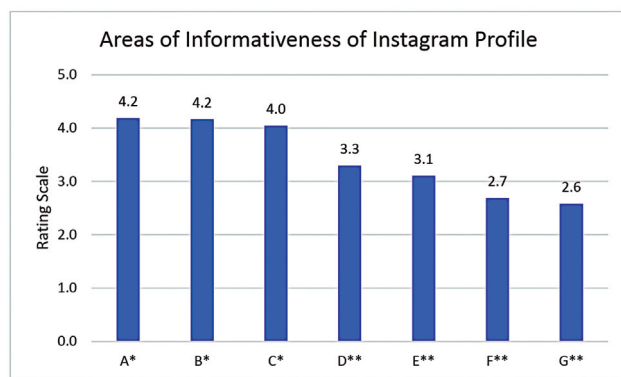


Fig. 3 (A) Resident profiles. (B) Resident life. (C) Louisville life. (D) Attending profiles. (E) Clinical sites. (F) Clinical volume. (G) Rotation schedule. Tukey-Kramer's Honest Significant Difference test was used to measure differences between groups. *No statistically significant difference was found between groups A, B, and C (p -value > 0.05). **Statistically significant differences compared against A, B, or C (p -value < 0.001).

departments, and the ability of top applicants to secure more interview spots due to lack of travel were discussed. While these are poignant topics in the continuously evolving post-COVID landscape, there was no input from the medical students themselves on the changes they experience or their preferences on learning about and connecting with programs. The current study surveyed ophthalmology applicants with a 17.5% response rate. While these results are not generalizable to an average ophthalmology applicant, much less the average medical student, a large number of other specialties such as otolaryngology, orthopaedic surgery, neurological surgery, plastic surgery, general surgery, anesthesiology, dermatology, pediatrics, and pathology have published literature regarding the increase of social media use by residency programs after COVID-19.⁵⁻¹³ Nearly all of these specialties demonstrated higher usage of Instagram compared to Twitter and Facebook,^{5-9,11,12} with anesthesiology and pathology showing a slightly greater preference for Twitter over Instagram.^{10,13} Instagram can be a powerful modality for programs to communicate actively and passively with applicants. "Posts" consist of pictures that can be formal or informal; "Reels" are videos that can be educational or promotional; "Stories" are typically informal point of view videos that expire after 24 hours and show up at the top of users' phones in the Instagram application; "Highlights" are "Stories" that accounts can permanently display; and messaging allows immediate direct communication between users. With most users opening the application multiple times daily for recreation and receiving push notifications for messaging, the Instagram platform is already integrated into the lives of applicants. Despite multiple publications across multiple fields regarding the increase in social media use, this study is the first to measure the perspectives of applicants. The applicants show positive impact from social media accounts and value resident profiles and resident life, traits posited to be better suited for Instagram over other social media platforms by Goshtasbi et al.¹⁴

The specific UL experience highlights that developing a quality Instagram account carries several potential benefits to a residency program with minimal negative repercussions. As with any social media profile, anticipated risks include public conflicts via comments with followers regarding differing views on race, politics, gender, lifestyle, etc. Fortunately, the UL account experienced only one complaint with regards to one picture in a resident profile. In January 2020, the UL ophthalmology residency program's Instagram account was not included in the analysis by Al-kharsan et al³ due to lack of usage and engagement. By January 2021, after investment of current resident time and energy into the program's Instagram account to engage potential applicants, Wolfel et al¹⁵ recognized the UL residency program's Instagram account as the seventh-ranked ophthalmology program account based on number of likes divided by number of followers. A program traditionally ranked outside of the "Top 20" by U.S. News and World Report and Doximity was able to break into the ranks of Top 10 on Instagram and, as this study quantifies, positively influence the perspectives of applicants in the process.

There are several limitations to this study. The applicants surveyed are only those who applied to a single institution, which may reflect demographics, regional preferences, and medical schools, all of which may tailor to specific cultural attitudes towards social media. This limitation affects the generalizability of this study to all programs, though the aim is to show a test case of how programs can improve in providing certain types of information to prospective applicants. The survey was emailed to applicants soon after match results were released, which may have triggered positive or negative emotional feelings and thus affected survey answers. As mentioned above, response rate was also low (17.5%), which may be due to response bias and timing of the survey. Those who are actively using social media are more likely to respond to a survey about social media. It is unclear when the ideal time to survey respondents would occur. If surveyed prior to match results applicants may believe their answers could affect their results, and if surveyed later applicants may have had more difficulty recalling their emotions during the application cycle to answer appropriately.

In conclusion, this study demonstrates the potential powerful impact of social media platforms, including Instagram, in influencing medical students applying for residency. A majority of applicants already use social media, search for program information, and seem to be most positively motivated by learning more about the residents, their day-to-day lives, and life in the program's city. Future efforts by ophthalmology residency programs should aim to provide applicants with this material to aid in recruitment efforts through the application cycle.

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Conflict of Interest

The authors have no relevant conflicts of interest to declare.

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