Resident-as-teacher to provide multidisciplinary online medical education on Instagram
Les résidents enseignent : capsules d’enseignement médical multidisciplinaire sur Instagram

Chaocheng Liu,1 Sanjay Sharma2
1Department of Dermatology and Skin Science, University of British Columbia, British Columbia, Canada; 2Department of Ophthalmology and Epidemiology, Queen’s University, Ontario, Canada
Correspondence to: Chaocheng Liu, MD, 835 West 10th Ave Dept of Dermatology & Skin Science, 3rd Fl, University of British Columbia Vancouver, BC Canada V5Z 4E8; email: cl13@ualberta.ca
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Implication Statement
Instagram is an easy-to-use smartphone-based program and an increasingly popular platform for medical education. A total of 17 weekly structured resident-led education sessions that cover 15 different medical specialities were hosted on an Instagram account (@medskldotcom) to publish clinical “pearls” – short pieces of free standing, evidence-based, clinically relevant information designed specifically for medical students. With the cancellations of out-of-province clerkship electives during COVID-19 pandemic, the number of resident-led Instagram accounts to promote residency programs have increased. Our initiative can be easily adapted by residents or even clinicians to provide medical education to medical students, showcase residents, and attract followers on Instagram.

Introduction
Instagram, a platform delivering image-based information, has over one billion users worldwide.1 It can serve as a platform for medical education content, for example, through images pertaining to infectious disease and radiology.2,3 Many popular Instagram accounts that provide medical education content are run by practising physicians in specific disciplines, and their content is often unstructured and not designed specifically for medical students.4 Resident-as-teacher programs have been implemented in various specialities.5 Residents may serve a great resource in providing online medical education. We launched an innovation of structured resident-led weekly teaching sessions on clinical “pearls” – short pieces of free standing, evidence-based, clinically relevant information – cross multiple disciplines for medical students on Instagram to address the need of continued clinical teaching during the COVID-19 pandemic. This study was exempt from Research Ethics Board review.
Innovation

Medskl.com is a medical education website to provide free and open access to medical educational materials. Eighteen residents (PGY1 to fellow) volunteered their time as Section Editors for its Instagram account (managed by two medical students). The Section Editors published daily Instagram posts on weekdays to teach clinical pearls of their choice that were peer reviewed by other residents. The specialties rotate weekly (content for each weekday shown below).

1. History-taking: medical history questions to ask for a common clinical presentation;
2. Examination Skills: key components of a clinical examination/procedure;
3. Laboratory/Imaging Interpretation: tips to interpret laboratory results and imaging;
4. Resident Spotlight: a headshot image and a resident biography (residents used the account to share resident life using Instagram Stories);
5. Lecture: a post to announce 30-min lectures by residents

Seventeen weekly rotations of Instagram posts were delivered by 15 specialities between September 2020 to March 2021.

Outcomes

The number of followers increased by 4-fold, from 300 in August 2020 to 1,220 in March 2021. The followers are from Canada (36.2%), the United States (11.9%), India (11.4%), Kenya (6.8%), and Other (33.7%); Most followers are between the ages of 25-34 and 18-24 (47.8% and 37.7%, respectively).

Reach (number of users who have viewed posts) and the number of Likes were measured and calculated based on the types of posts. The average Reach per post increased by 5-fold from 96 to 481 after 17 weeks. Reach for Laboratory/Imaging Interpretation (image) was the highest, followed by History-taking (image), and Examination Skills (image) (Table 1). The average Reach for image posts is significantly higher than that for video posts. The average number of Likes per post is 21 and not significantly different between image/video posts.

Next steps

This innovation provided insight into ways of delivering structured online medical education led by residents on Instagram. Resident-as-teacher (in this case, Resident-as-editor) may serve as an effective way to manage an Instagram account with a focus on medical education to attract more followers and reach more users. The results also remind Instagram educators that image posts are more effective in attracting views than video posts on Instagram (Table 1).

The next step is to evaluate residents’ experiences as teachers in this initiative, and medical student satisfaction, learning, and behaviour change.

Table 1. Average reach and number of likes for Instagram posts by category

<table>
<thead>
<tr>
<th>Type of Post</th>
<th>Reach Mean (SD)</th>
<th>Likes Mean (SD)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>History-taking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Image</td>
<td>576 (82)</td>
<td>25 (6)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Video</td>
<td>379 (84)</td>
<td>21 (10)</td>
<td></td>
</tr>
<tr>
<td>Examination Skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Image</td>
<td>527 (144)</td>
<td>23 (10)</td>
<td>.007</td>
</tr>
<tr>
<td>Video</td>
<td>368 (104)</td>
<td>17 (9)</td>
<td>.13</td>
</tr>
<tr>
<td>Lab/Imaging Interpretation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Image</td>
<td>606 (215)</td>
<td>26 (14)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Video</td>
<td>334 (100)</td>
<td>17 (11)</td>
<td>.11</td>
</tr>
<tr>
<td>Resident Spotlight</td>
<td>492 (87)</td>
<td>22 (9)</td>
<td></td>
</tr>
<tr>
<td>Lecture</td>
<td>433 (70)</td>
<td>16 (5)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>481 (142)</td>
<td>21 (9)</td>
<td></td>
</tr>
</tbody>
</table>

SD = standard deviation

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References


