Analyzing Public Awareness of Alopecia through Google Trends and Social Media

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Background

- Alopecia is a common medical condition affecting roughly 2% of the global population that characteristically causes patchy, circular hair loss
- As 93% of Americans report using the internet to obtain health information[1,2], we analyzed Google Trends and Instagram to examine public interest in alopecia[3]

Study Objectives

- Examine temporal trends, primary audiences, and other noteworthy points regarding public awareness and interest in alopecia through analyzing Google Trends and Instagram data

Methods

- Google Trends search with the keyword "alopecia" was performed on August 9, 2022
- Public interest in alopecia was analyzed using relative search volume (RSV) and top queries for alopecia
- RSV shows temporal and geographic trends of searches while normalizing for population sizes on a scale of 0-100
- The top 300 Instagram posts as of August 9, 2022 with the hashtag "alopecia" were characterized for source of information and themes; source and themes were determined by author consensus.

Results

- The Google Trends search yielded 290 million results, with increasing volume since 2004 (**Figure 1**)
- Search frequency increased over the last two decades with peaks in 2020 and 2022

Results

- The top alopecia search results were from the following pages: WebMD, American Academy of Dermatology, Mayo Clinic, National Institutes of Health, Yale Medicine, National Alopecia Areata Foundation, and Wikipedia
- Prior to 2022, the most popular themes centered on alopecia etiology, particularly in women. Following 2022, notably around the Oscars, the most popular search terms centered on Jada Pinkett-Smith (**Figure 2**)
- The majority of Instagram posts were from patients (42.7%) or hair stylists (18.7%) (**Figure 3**)
- The top three most common Instagram themes included treatments (42.7%), personal stories (41%), and modeling/media representation (13%)
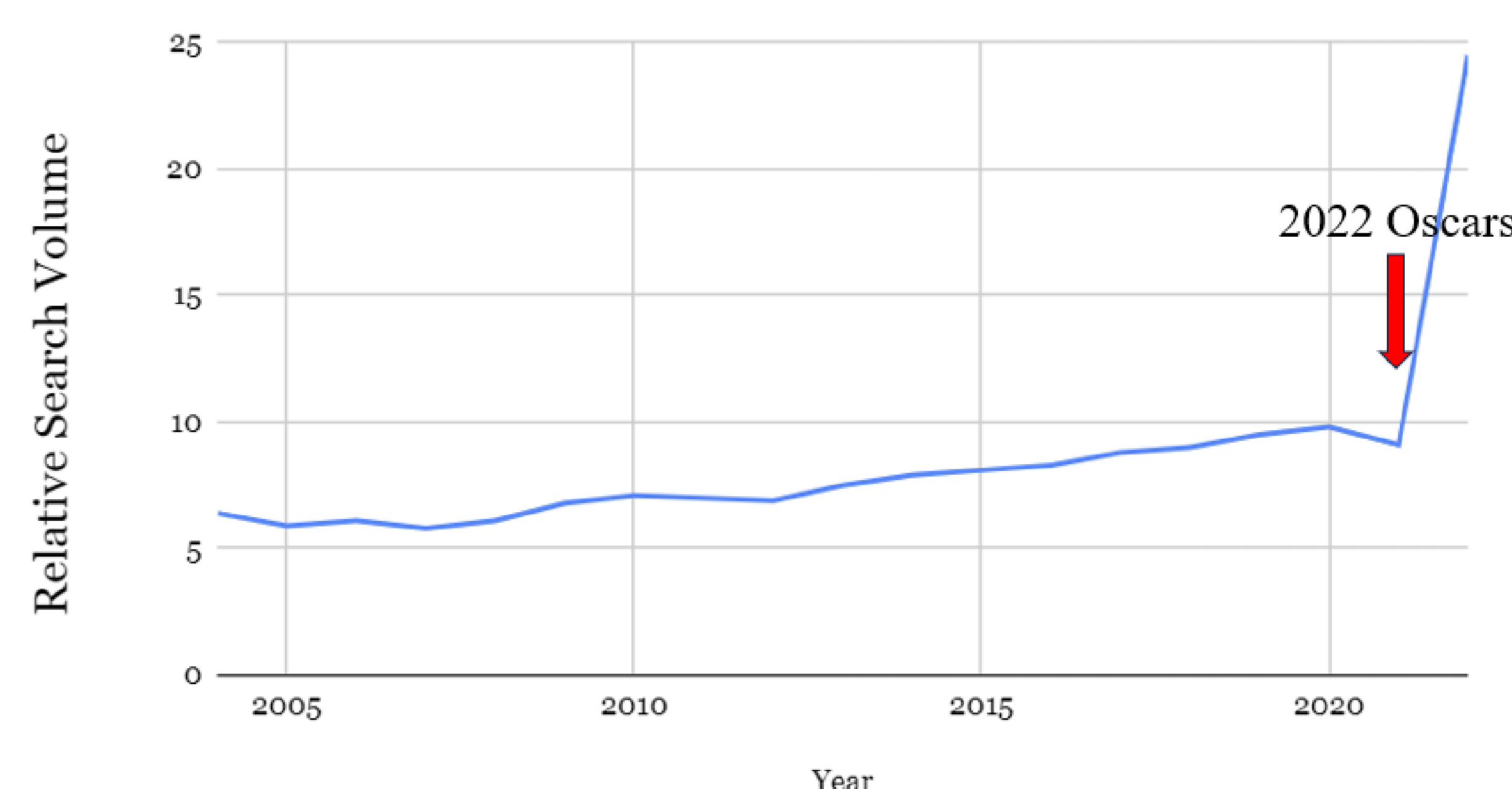

Figure 1: RSV per year for search term "alopecia".

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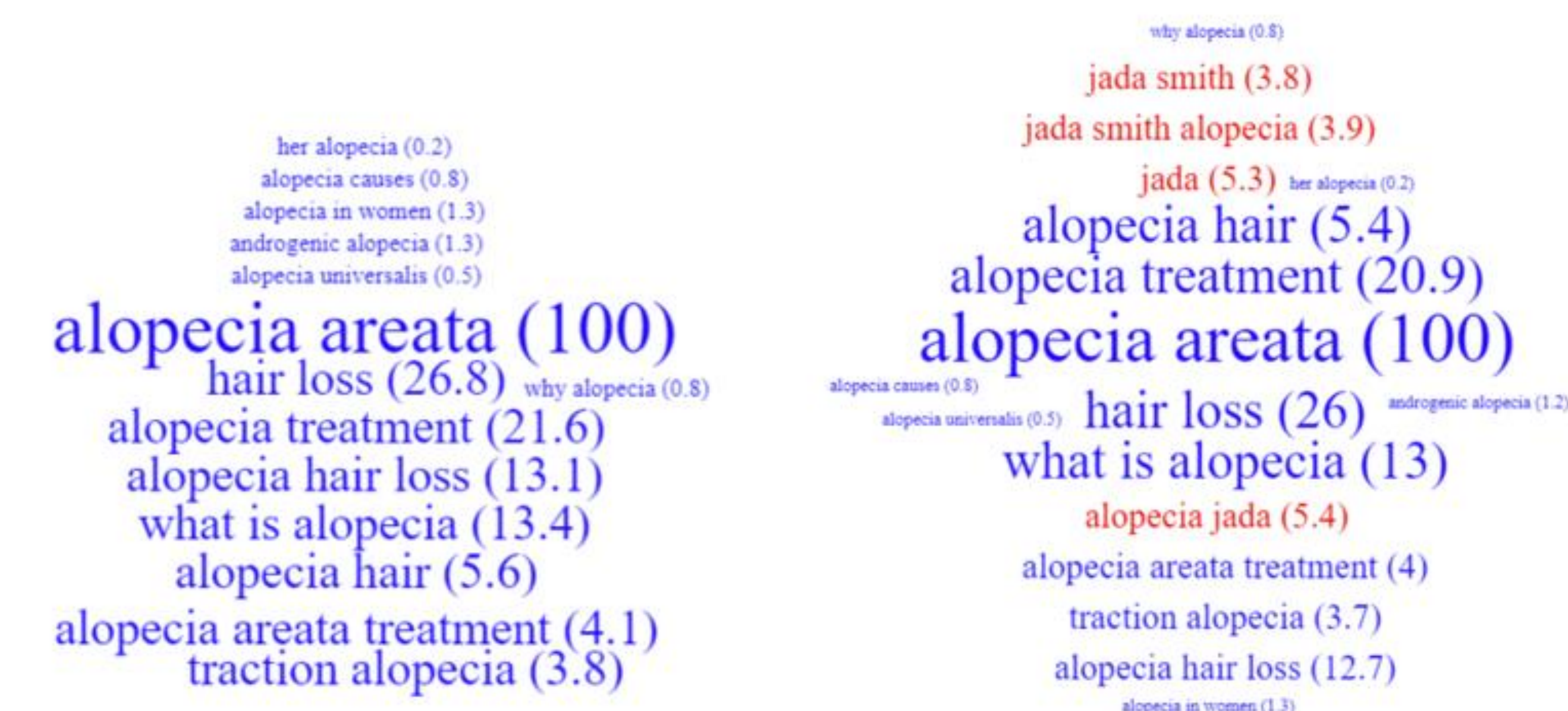
Results

Figure 2: Wordcloud of the top Google Trends queries related to alopecia between 2004-2021 (left) and 2004-2022 (right, new terms in red).
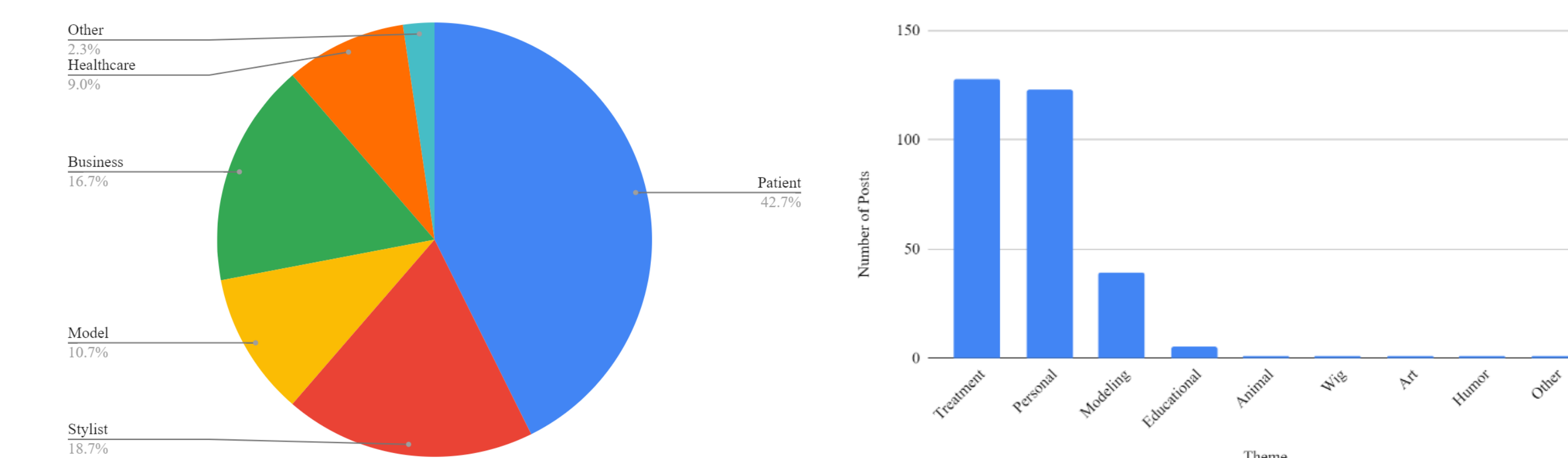

Figure 3: Instagram posts by creator (left) and theme (right).

Discussion

- Google Trends provides an overview of population interest in alopecia while Instagram highlights common themes
- Interest in alopecia has increased over the past two decades, largely due to celebrities such as Jada Pinkett-Smith
- Increased stigma may negatively impact alopecia awareness and make it more difficult for women to obtain hair loss resources
- A small percentage of the top Instagram content came from medical professionals; this may represent an opportunity for clinicians to expand their scope on social media[4]