

## Introduction

- Free flap reconstruction in head and neck cancer (HNC) has the potential to enhance both form and function following major oncological resection. The surgical objectives encompass the improvement of speech, swallowing, facial symmetry, and addressing aesthetic concerns.
- Social media represents an emerging platform for patients and healthcare providers. Patients share their experiences, recovery insights, and connect with others. Previous literature has highlighted social media as a valuable channel for patient communication and outreach (Stellefson).
- Nonetheless, a knowledge gap exists regarding the utilization of social media by clinicians and institutions. Otolaryngology lacks reports on the public portrayal of microvascular reconstructive surgery on social media, particularly concerning free flaps in HNC.
- This study aims to investigate the use of social media for free flap reconstruction in HNC and evaluate how clinicians and healthcare institutions portray and disseminate information in this context.

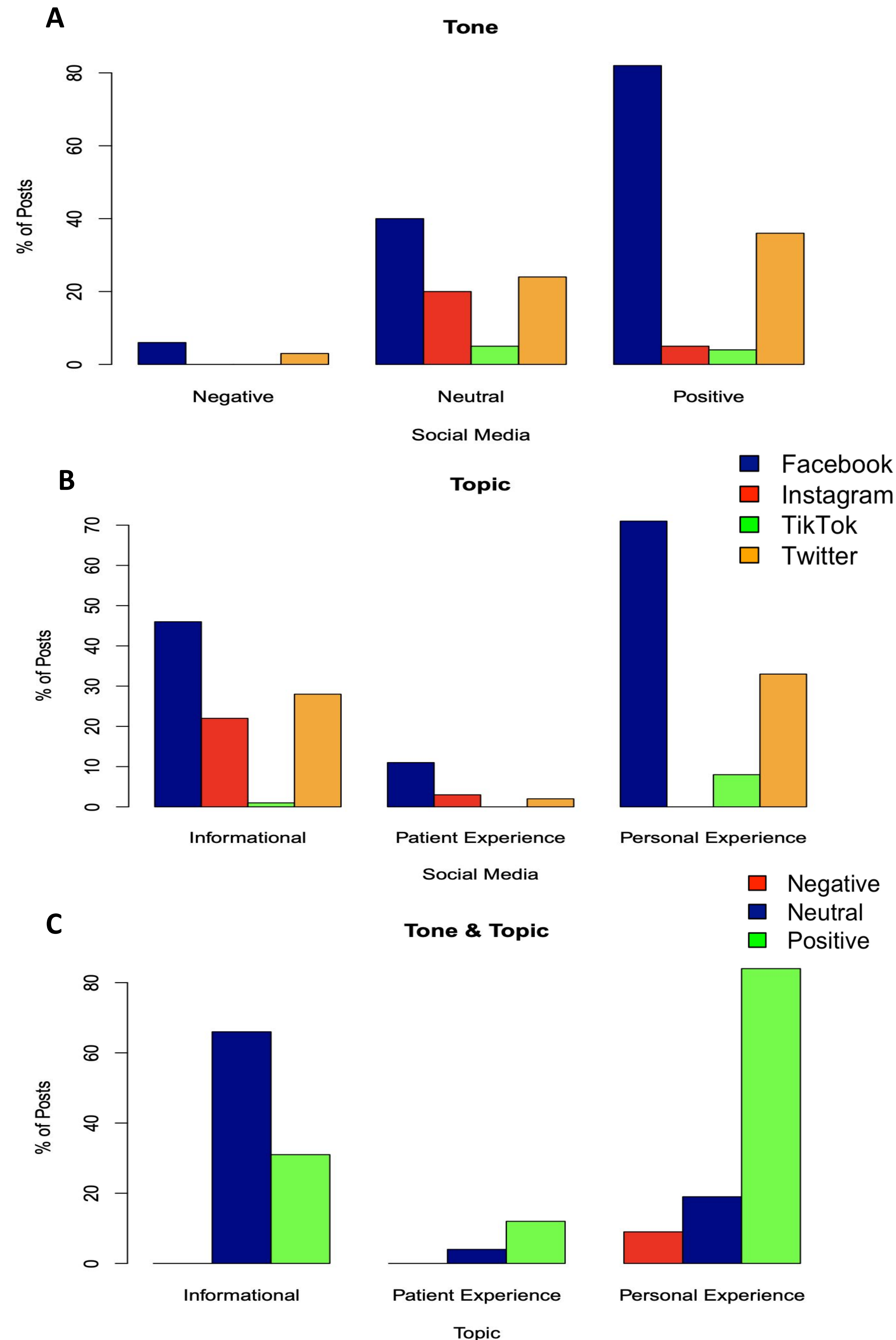
## Methods and Materials

- Comprehensive searches were conducted on various social media platforms (Facebook, Instagram, Twitter, Tiktok)
- Posts between 2013-2023 were identified using specific hashtags: #headandneckcancer, #freeflaps, #fibulafreeflap, and additional posts were discovered through targeted search terms, including "tongue cancer," "neck cancer," and "free flaps."
- Posts from Facebook groups dedicated to free flaps in HNC were also included.
- All posts related to free flap procedures in HNC were incorporated, while non-original posts and reposts were excluded.
- Furthermore, posts in languages other than English were excluded from the analysis.

## Results

- Total posts analyzed: 225.
- Physicians made more posts than patients overall (47% vs. 40%).
- Physician posts tended to have a more neutral tone (60.2%), while patient posts were more positive (74.40%; p-value < 0.05).
- The majority of posts were informational (50%).
- A significant portion of posts focused on personal experiences (43%).
- 106 posts (47%) discussed the post-operative experience.
- Overall, 56% of posts had a positive tone, and 39.5% had a neutral tone.
- Figures 1A, 1B, and 1C present a comparative analysis of social media utilization, categorizing posts based on topic and tone.

## Results/Graphs



Figures 1A and 1B depicts bargraphs that illustrate the difference in tone by Social Media. Figure 1C depicts a bargraph that illustrates a combined analysis of topic and tone.

## Conclusions

- Physicians were the most prolific contributors across platforms, typically providing informative and neutral-toned content.
- Physicians utilize social media to expand their reach, share accurate information, and promote research in their field.
- Patients use social media platforms to share experiences, inspire others, and even raise funds for medical expenses.
- Posts authored by patients predominantly conveyed positive experiences, spanning the pre-operative, peri-operative, and post-operative phases, with Facebook being a prominent platform.
- The study highlighted platform-dependent variations in content and perceptions of the procedures.
- Social media fosters a supportive community for healthcare professionals and patients focused on specific medical conditions.

## Limitations

- Bias reduction strategies were applied in this study; however, inherent social media biases remained uncontrolled.
- Variation in social media user demographics across platforms posed a challenge in study design.
- Objective measures, such as post engagement metrics, constituted the primary data collection approach, but the subjective evaluation of post tone introduced subjectivity.

## References

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